EFFECTIVENESS OF INSTRUCTIONAL PACKAGE ON KNOWLEDGE REGARDING COLOSTOMY CARE AMONG CARE GIVERS IN PEDIATRIC POST OPERATIVE WARD AT INSTITUTE OF CHILD HEALTH AND RESEARCH CENTRE, MADURAI.

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CERTIFICATE

This is to certify that this dissertation titled**, "Effectiveness of instructional package on knowledge regarding colostomy care among care givers in pediatric post operative ward at institute of Child Health and Research Centre, Madurai." Done by Mrs. Dhanalakshmi Chinnathambi",** College of Nursing, Madurai Medical College, Madurai - 20, submitted to the Tamilnadu Dr.M.G.R. Medical University, Chennai in partial fulfillment of the university rules and regulations towards the award of the degree of **MASTER OF SCIENCE IN NURSING, BRANCH II, CHILD HEALTH NURSING** Under our guidance and supervision during the academic period from 2014 – 2016.

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ABSTRACT

A study to evaluate the effectiveness of instructional package on knowledge regarding colostomy care among care givers in pediatric post operative ward at institute of child health and research centre. **Objectives** To assess the level of knowledge regarding colostomy care and effectiveness of instructional package on colostomy care among care givers. To associate the level of knowledge regarding colostomy care with their selected socio demographic variables. **Hypothesis H_1:** There is a significant difference between the pretest and posttest level of knowledge regarding colostomy care. **H_2:** There is a significant association between the level of knowledge regarding colostomy care. **Conceptual Framework:** For this study was applied Ludwig Von Bertalanffy's general ststem theory. **Methodology:** Research approach is a quantitative approach in which one group pretest posttest design was used. **Data Collection Procedure :** consecutive method samples were collected. Period of study was for 4-6 weeks. Total samples size was 30, in which approximately 4-6 subjects were selected as per the inclusion criteria, on the 1st post operative day after the colostomy surgery. Pre test were conducted on the same day and on the 2nd day instructional package was distributed to the group and the doubt were clarified for the following days and there after post test was carried out on the seventh day among the care givers. The same procedure was repeated for all the subjects until required selective of 30 samples. **Results:** The level of knowledge regarding pretest and posttest mean score is 47.00 and 65.33 respectively. Paired 't' test value is 5.984. The calculated value is -5.984 is much higher than the table value at $p < 0.001$ level of significance. **Conclusion:** The study concluded that instruction package teaching was effective are knowledge level of colostomy care among care givers of children with colostomy.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

INTRODUCTION

CHAPTER - I

INTRODUCTION

"Children are the wealth of tomorrow; take care of them if you wish to have a strong India. Ever ready to meet various challenges"

- ***Jawaharlal Nehru***

Children are vital to the nation's present and its future. Parents, grandparents, aunts, and uncles are usually committed to providing every advantage possible to the children in their families, and to ensuring that they are healthy and have the opportunities that they need to fulfill their potential. Yet communities vary considerably in their commitment to the collective health of children and in the resources that they make available to meet children's needs. This is reflected in the ways in which communities address their collective commitment to children, specifically to their health. In recent years, there has been an increased focus on issues that affect children and on improving their health. Children have begun to be recognized not only for who they are today but for their future roles in creating families, powering the workforce, and making American democracy work. Mounting evidence that health during childhood sets the stage for adult.

An infant is the very young offspring of a human or animal. When applied to humans, the term is usually considered synonymous with baby or bairn, but the latter is commonly applied to the young of any animal. When a human child learns to walk, the term toddler may be used instead.

The term infant is typically applied to young children between the ages of 1 month and 12 months; however, definitions may vary between birth and 1 year of age, or even between birth and 2 years of age. A newborn is an infant who is only hours, days, or up to a few weeks old. In medical contexts, newborn or neonate refers to an infant in the first 28 days after birth; the term applies to premature infants, postmature

infants, and full term infants. Before birth, the term *fetus* is used. In the UK, infant is a term that can be applied to school children aged between four and seven.

A newborn infant, or neonate, is a child under 28 days of age. During these first 28 days of life, the child is at highest risk of dying. It is thus crucial that appropriate feeding and care are provided during this period, both to improve the child's chances of survival and to lay the foundations for a healthy life.

Children generally have fewer rights than adults and are classed as unable to make serious decisions, and legally must always be under the care of a responsible adult. Recognition of childhood as a state different from adulthood began to emerge in the 16th and 17th centuries. Society began to relate to the child not as a miniature adult but as a person of a lower level of maturity needing adult protection, love and nurturing. This change can be traced in paintings: In the Middle Ages, children were portrayed in art as miniature adults with no childlike characteristics. In the 16th century, images of children began to acquire a distinct childlike appearance. From the late 17th century onwards, children were shown playing. Toys and literature for children also began to develop at this time.

Being sick is part of childhood, and caring for a sick child is part of being a parent. You might worry about a rash or wonder if a cough is getting worse. Many of the diseases listed on this page spread easily between family members, at day-care centres and at schools. Thankfully some of them are preventable via immunisation. Read on to learn about causes, symptoms and when to see a doctor. Chickenpox is a mild and common childhood illness, but can also occur in adults. Some children have only a few spots, but in others spots can cover the entire body. Here's information about the incubation period, how chickenpox is diagnosed, and tips on how to help ease the itchiness. It's normal for a child to have eight or more colds a year. This is

because young children have no immunity to different cold viruses. Gradually they build up immunity. Read this article to find out more about common childhood ailments. Croup is very common in young children, mainly in children under five years old. The inflammation is usually caused by the same viruses that cause the common cold, and it's rarely serious. Learn about croup symptoms, how it's diagnosed and common treatments, and when to seek medical advice for more serious cases. You can become very concerned for your baby or your young child if they have bouts of diarrhoea and vomiting. However, these helpful tips can explain some of the causes and show you how to alleviate the symptoms. It can be very worrying if your child has a high temperature; however, fever in itself is rarely harmful, and often clears up on its own. In the meantime, read these tips on how to make your child more comfortable, and how to spot signs of when you should seek urgent medical attention.

Babies are more likely to develop allergies if there's a history of eczema, asthma, hay fever or food allergies in the family. Learn about foods that commonly cause allergies, how to spot a reaction and when to seek medical advice. Anyone can get measles if they haven't been vaccinated or had it before, although it's most common in children between three and five years of age. Measles is highly infectious and can lead to serious complications. Here's important information about vaccination, symptoms and treatments. Mumps is a contagious viral infection that is most common in children between five and 15 years of age. These days it's rarely seen because of effective immunisation. Find out about causes of mumps, possible self-care techniques and how to avoid it in the first place. Rubella used to be common in children. It's usually a mild viral infection, and best prevented by the MMR vaccination. Learn more about rubella's distinctive rash, other symptoms, treatments and possible complications if caught during pregnancy. Whooping cough is a highly

contagious bacterial infection of the lungs and airways. Babies are at greatest risk of infection until they can have at least two doses of the vaccine.

Missing or Undeveloped Limbs Causes of Unfortunately, the cause of this birth defect is largely unknown. Some experts believe that maternal exposure during pregnancy to a chemical or virus that only mildly affects the mother might be possible causes. Treatment of When a child is born with a limb anomaly, the doctor refers the parents to an orthopedic specialist and a physical therapist. The child is then fitted with a prosthesis (artificial body part) as soon as possible so that he becomes comfortable with it early on. He will also undergo intensive physical therapy so that he learns to use the prosthesis much as other children learn to control their body parts.

Sickle-Cell Disease - Sometimes certain substances essential to a baby's proper body functioning are either abnormal or completely absent. Without intervention, deficiencies like the following can be devastating (and often even fatal) because they affect many bodily systems. Prevalence of Sickle-cell disease occurs in around 1 in 625 births, mostly affecting African-Americans and Hispanics of Caribbean ancestry. Detection of Because of its prevalence, 30 states require that newborns be given the blood test that detects the disorder. Symptoms of the disease can causedebilitating bouts of pain and damage to vital organs and can sometimes be fatal. Sickle-cell disease affects the hemoglobin (a protein inside the red blood cells) in such a way that the cells become distorted: Instead of their normal, round shape, they look like bananas or sickles. These misformed cells then become trapped in and destroyed by the liver and spleen, resulting in anemia. In severe cases, an affected child may be pale, have shortness of breath, and tire easily. The episodes of pain, called crises, happen when the cells become stuck, blocking tiny blood vessels and cutting off the oxygen supply to various parts of the child's body. Another complication of sickle-cell

disease, noticeable mostly in infants and young children, is vulnerability to severe bacterial infections. Two weapons against this risk are immunization (the usual vaccines, as well as pneumonia and flu shots) and daily preventative penicillin treatments. Although the disease can't be cured, a number of new therapies that reduce the severity and frequency of crises are being studied.

PKU (phenylketonuria) is an inherited metabolic disorder that occurs in 1 in 15,000 births (less commonly among African-Americans and people of Jewish descent). All babies in the U.S. are tested for the disease soon after birth. A child with PKU is missing a crucial enzyme that breaks down a protein called phenylalanine that is found in many goods. If PKU is left untreated, this protein can rise to high concentrations in the body and cause mental retardation. Children born with PKU can live a normal life if put on a strict diet. Usually started before the fourth week of life, this diet is low in foods that contain phenylalanine, including breast milk and cow's milk. Instead, an affected child must be fed a special formula. As the baby gets older, however, she can eat certain vegetables, fruits, and grain products but usually must avoid cheese, meat, fish, and eggs. Regular blood tests of phenylalanine levels can help determine what an affected child can and can't eat.

Two of the most common abnormalities, Down syndrome and Fragile X syndrome, are also frequent causes of mental retardation. Both can be diagnosed before birth. While neither defect is curable, early intervention allows a child to develop to his full potential. Though Down syndrome occurs in 1 in 800 births overall, the incidence is much higher in older mothers. A child with Down syndrome generally has characteristic physical features, including slanted eyes; small ears that fold over at the top; a small mouth, which makes the tongue appear larger; a small nose with a flattened nasal bridge; a short neck; and small hands with short fingers.

More than 50 percent of children with this defect have visual or hearing impairments. Ear infections, heart defects, and intestinal malformations are also common among children with this defect. Though children with Down syndrome have some degree of mental retardation, most can be expected to do many of the same things that any young child can do -- including walking, talking, and being toilet trained -- although generally they learn how to do so later than unaffected children.

Prevalence of Fragile X syndrome primarily affects males (1 in 1,500). Although 1 in 1,000 females is a carrier, only one in three shows outward signs of having the defect, including intellectual impairment. The range of retardation varies from mild to severe. Symptoms of the physical characteristics of Fragile X syndrome may include large ears, an elongated face, poor muscle tone, flat feet, large testicles, overcrowded teeth, cleft palate, heart problems, and autistic-like tendencies. Affected children may also suffer seizures. However, many children with Fragile X syndrome appear to be physically normal at birth, so a diagnosis may not be made until the ages of 18 months and 2 years. At that time, a lack of language development coupled with other developmental delays usually prompts testing. Treatment of Down syndrome, children with Fragile X syndrome can be expected to do most things that any young child can do, although they also generally learn these things later than unaffected children. And, as with most of these birth defects, early-intervention programs begun in infancy can help maximize the child's development.

Sometimes babies are born with malformations somewhere along the gastrointestinal (GI) tract. These malformations are not caused by prematurity and are rare. They range from minor to serious and can occur anywhere from the esophagus to the anus. Many of these conditions can be surgically treated, with an excellent chance

at normal development and function later on as the baby grows into childhood and beyond. Other malformations have outcomes that are not as good.

Esophageal atresia and fistula are malformations in which the natural breathing tube, known as the trachea, and the feeding tube, called the esophagus, are improperly formed. Most often the upper esophagus lacks a connection to the stomach while the lower esophagus connects to the trachea through an abnormal passage called a fistula. Babies with these types of malformations are fed with total parenteral nutrition (TPN) or with a feeding tube directly into the stomach. During this time, the baby gains strength and the esophagus will continue to grow. After several weeks, the malformation is repaired with surgery. About 20% of babies with these types of malformations will also have other complications, such as heart disease.

Intestinal atresias are malformations of the intestines in which a segment of bowel is very narrow or is disconnected from the rest of the GI tract. Most commonly, these occur in or near the duodenum, just below the stomach. Although atresias are rare, babies born with this condition are often small for their gestational age and some may also have Down syndrome. Depending on exactly where the malformation is, bile may be released into the GI tract with nowhere to go but up, appearing in the esophagus. As with esophageal atresia, the malformation is repaired with surgery, though the exact nature of the malformation may mean surgery will be performed sooner rather than later.

Until about the 10th week of pregnancy, a fetus's GI tract develops, in part, in the umbilical cord. At this point, it returns to the abdomen and rotates 90 degrees to the right. The individual components of the GI tract, including the duodenum, which connects the stomach and the intestines, and the intestines themselves, rearrange themselves and begin to settle into a position that will then remain unchanged for the

rest of a person's life. At the end of this process, the GI tract is normally fixed; that is, it is contained and supported, and does not move.

Occasionally, this series of maneuvers and migrations is not performed properly and part of the GI tract, though still connected, ends up in the wrong place. This malrotation, as it is called, can also leave the GI tract unfixed. In some cases, this is not a problem; some people end up leading a normal life with an unfixed and rotated bowel. However, many babies have severe symptoms. Occasionally, as the GI tract settles itself into place, it loops around itself, reducing its blood supply or causing an obstruction. This is called volvulus. Malrotation with volvulus requires emergency surgery to correct the problem.

Hirschsprung's disease is a condition in which nerve cells called ganglia have not formed on the inner wall of the bowel. This causes the bowel to contract and not relax, obstructing the lower intestine. Boys are about 10 times more likely to have the disease than girls. Again, surgery is used to correct the malformation. Surgeons will identify the bowel section without ganglia, cut it out, and reattach the two ends of healthy bowel. Sometimes a colostomy, or the surgical removal of some of the bowels, is necessary, and the surgeons will do the final repair at six to 12 months of age. Many babies who have undergone this procedure will develop and lead normal lives, since enough functioning bowel remains for digestion. However, a small number of babies with Hirschsprung's disease also have an inflammation of the large intestine called colitis, which may complicate surgery and can be life threatening.

Some babies are born with malformations of the anus, rectum, or both. There are several general types. They have varying degrees of severity and are treated with surgery. These malformations are often specific to boys and girls. The malformation can come in the form of an absence of an opening where the anus should be; a fistula,

or small opening from the rectum to the urinary tract or to the vagina; and many variations from these general categories. Depending on the exact nature and severity of the malformation, babies may be left completely continent, with full control over their bowel movements; partially continent; or incontinent. In general, surgeons will close the fistula and, in the case of a missing anus, create an opening and gently pull though the bottom of the bowel, creating a new anus.

A defect in the abdominal wall may allow some of the digestive system to develop outside the baby's body in the amniotic fluid of the womb. These rare abnormalities are usually very small and only a small portion of the intestines are exposed. Gastroschisis occurs on the abdominal wall. Omphalocele occurs on the umbilicus, or belly button. Each of these defects allows some of the digestive system to develop outside the body. They can be small or large, and involve one organ or several. Sometimes, these conditions can be diagnosed before birth. Exposure to the amniotic fluid can cause damage to the intestines. For this reason, some hospitals may suggest a planned early caesarean section to limit the extent of intestinal exposure to amniotic fluid. There is still debate about whether this is the best course of action. The treatment is surgical reinsertion of the intestines into the body. Depending on the size and extent of the condition, there may be more than one surgery needed to accomplish this goal.Though in general they are very rare, there are many other types of malformations not mentioned on this page.

Anorectal malformations are birth defects where the anus and rectum do not develop properly. During a bowel movement, stool passes from the large intestine to the rectum and then to the anus. Muscles in the anal area help to control when a bowel movement occurs. Nerves in the area help the individual sense the need for a bowel movement and also stimulate muscle activity.

Congenital anomalies are important causes of childhood death, chronic illness and disability calling all Member States to promote primary prevention and improve the health of children with congenital anomalies by developing and strengthening registration and surveillance systems, developing expertise and building capacity, strengthening research and studies on etiology, diagnosis and prevention, promoting international cooperation. in many countries. In 2010, the World Health Assembly adopted a resolution on birth defects Congenital Definition anomalies are also known as birth defects, congenital disorders or congenital malformations. Congenital anomalies can be defined as structural or functional anomalies that occur during intrauterine life and can be identified prenatally, at birth or later in life.

Sometimes babies are born with malformations somewhere along the gastrointestinal tract. These malformations are not caused by prematurity and are rare. They range from minor to serious and can occur anywhere from the esophagus to the anus. Many of these conditions can be surgically treated, with an excellent chance at normal development and function later on as the baby grows into childhood and beyond. Other malformations have outcomes that are not as good. Esophageal atresia and fistula are malformations in which the natural breathing tube, known as the trachea, and the feeding tube, called the esophagus, is improperly formed. Most often the upper esophagus lacks a connection to the stomach while the lower esophagus connects to the trachea through an abnormal passage called a fistula. Babies with these types of malformations are fed with total parenteral nutrition or with a feeding tube directly into the stomach. During this time, the baby gains strength and the esophagus will continue to grow. After several weeks, the malformation is repaired with surgery. About 20% of babies with these types of malformations will also have other complications, such as heart disease.

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Anorectal Malformation, aka Imperforate Anus, is a spectrum of abnormalities of the rectum and anus. There are many possible abnormalities as follows the absence of an anal opening, the anal opening in the wrong place, a connection, or fistula, joining the intestine and urinary system, A connection joining the intestine and vagina, In females, the intestine can join with the urinary system and vagina in a single opening, known as a cloaca.

Colostomy in infancy and childhood is usually performed for benign disease and is of a temporary nature. The colostomy often may be functional for 12 to 18

months, however, and therefore requires skilled care by the patient and/or his parents. The purpose of this report is to describe a combined inpatient-outpatient program of colostomy care that has resulted in improved management of infants and children with colostomies. The physician, parent, nurse, and enterostomal therapist are all intimately involved in the program. It is further intended to acquaint the pediatric physician with complicating factors related to the procedure.

Colostomies in children are frequently performed to relieve colonic obstructions resulting from congenital anomalies such as Hirschsprung's disease, colon atresia, and imperforate anus, and occasionally for pelvic and perineal tumors, Crohn's disease of the colon, and instances of rectal perforation.

Nour S, Beck J, Stringer MD.(1996) conducted about a colostomy complications in infants and children. This study analyses the morbidity and mortality of colostomy formation and closure over a 17-year period during which 138 consecutive infants and children had a colostomy formed as the initial management of Hirschsprung's disease or anorectal malformation. Complications after colostomy formation were encountered in 38 (27.5%) patients and included colostomy prolapse, stenosis, retraction, dysfunction, skin excoriation and parastomal hernia. The complication rate with transverse colostomies was higher than with other types. Colostomy closure was associated with complications in nine patients (6.5%), the most serious of which was adhesive small bowel obstruction (5). The mortality was less than 1%, but significant morbidity still exists. Refinements in surgical technique may help reduce the incidence of complications.

1.1 Need for Study

Ostomies are temporary or definitive surgical therapeutic measure for many diseases or clinical situations[1]. A number of gastrointestinal disorders in infancy and childhood like anorectal malformations, esophageal atresia, tracheoesophageal atresia, congenital pouch colon , hirschprung's disease may require the formation of an enterostomy. One out of every 33 babies in the U.S. is born with a birth defect. In developing countries like India congenital malformations are one of the major causes of infant deaths[3]. The incidence of anorectal malformations (ARM) is approximately 1 per 5000 live births and affect males more than females. Esophageal atresia with or without Tracheoesophageal fistula is a common congenital disorder. Esophageal atresia with tracheoesophageal fistula occurs in 1 of 3000 to 5000 live births[11].These type of children will undergo gastrostomy, feeding jejunostomy for maintaining nutritional status. Apart from gastrostomy, cervical esophagostomy is also done for these children. Congenital pouch colon is a variety of anorectal malformation most frequently seen in north, north western and central part of India. Few cases have been reported in other parts of the world. Ileostomy is a common procedure done for this defect. In India typhoid fever is common where annual incidence rate is 980 per 100,000 in Delhi[8]. When typhoid fever is not treated, perforations developed and temporary ileostomy and ileocolostomy is performed. A prospective study to evaluate the prevalence and pattern of congenital malformations of the gastrointestinal tract among the newborn in Saudi Arabia was conducted during a 6 year period by obtaining data and recording consecutive admissions of newborns with the defect. The incidence of anorectal malformation of the gastrointestinal tract was 1.3 per 1000 live births.

Anal stenosis usually presents in the newborn period. Anal stenosis occurs in about 3 of 10,000 live births, with slightly more makes affected. Anal stenosis may not be apparent at birth because the anus looks normal. Imperforate anus typically develops during the fifth to seventh week of pregnancy and occurs in 1 of 5,000 live births slightly more common in males. Almost 50% of babies with imperforate anus have additional defects, often in association with a particular syndrome. 80% to 90% of patients with low imperforate anus one continent after surgery. A diversing colostomy is usually performed to protect the urinary tract and relieve obstruction after reparative surgery, one 30% of patients with high imperforate anus achieve fecal continence.

The care of the children with colostomy is a complex, challenging and lengthy process, though colostomy in a child is often temporary. However, since it alters the external appearance of the child, the psychological impact on the child and the family at times is profound. Sometimes the attitudes of the family strongly influence adjustment to surgery.1 Managing a child with such a deformity or caring for a child having colostomy is not institutionalized for economic and administrative reasons. the child needs to be provided all the care by the parents after discharge from the hospital. Subsequent to colostomy a large number of patients do not turn up for followup treatment in India. Probable reasons for this could be colostomy complications, culminating in high infant mortality rate and death due to diarrhea etc. Low socioeconomic status of the parents of children, lack of knowledge regarding medical care and meager resources to meet the cost of medical care are some of the impediments

Patwardhan N1, Kiely EM, Drake DP, Spitz L, Pierro A. (2001) conducted a study to Colostomy for anorectal anomalies: high incidence of complications. The

aim of this study was to characterize the type and incidence of complications related to colostomy There were 80 neonates with anorectal malformations, of whom, 49 (31 boys and 18 girls) were included in the study. The site of colostomy was sigmoid colon (n = 32), transverse colon (n = 7), and descending colon (n = 10). Thirty-nine colostomies were loop, and the remaining 7 were divided. The median birth weight was 2.96 kg (range, 1.46 to 3.88). The age at colostomy formation was 2 days (range, 1 to 210). Mechanical complications related to colostomy formation were observed in 16 infants (32%) with 3 infants having more than 1 mechanical complication. These included prolapse in 8 (50%), intestinal obstruction (adhesions, intussusception, and volvulus) in 7 (44%), and skin dehiscence in 3 (19%). One neonate had necrotizing enterocolitis (NEC) after colostomy formation. This study concluded that formation of colostomy for anorectal anomalies should not be considered a minor procedure. In our experience the incidence of complications after colostomy formation is high. The incidence of urinary tract infections does not seem to be affected by the type of colostomy performed.

Colostomy is done as first stage surgical repair and later a pull through procedure is performed. A descriptive study was done on 120 parents to develop educational aids for parents of children having colostomy and test its effectiveness in Chandigarh. A pre-test and post-test of education through booklet, video film and booklet + video film on care of colostomy was done. The educational aids were found to be significantly effective ($p<0.05$). In Paediatric Surgery Ward, St. John's Medical College Hospital, Bangalore the incidence of colostomy and ileostomy is approximately 3-5 each in a month. Gastrostomy and jejunostomy 4-6 in a year. Duodenostomy 3-5 in a year. Caregivers of children with enteral stomas are given information regarding enteral stoma care by the nurses and doctors. Presently, there is

no audio visual educational aid available on enteral stoma care in Paediatric Surgery Ward. Therefore the investigator felt the need to develop an educational aid to teach the caregivers regarding enteral stoma care so that they would be able to provide better enteral stoma care. Nurses and all health team members working in the Paediatric Surgery Department can make use of this educational aid for effective home care of a child with an enterostomy, thereby reducing further complications.

Arun Kadam[1], Mahadeo B Shinde (2014) conducted a study to Caregivers are those who are concerned with the client care in hospital & home. Most of the caregivers are not able to provide care to clients of colostomy with quality. Aim was planned to assess the effectiveness of structured education on caregiver's knowledge and attitude regarding colostomy care of patient. Experimental approach with one group pretest post test design was used for 30 caregivers and convenient sampling technique was used. Findings of Majority 36.66 % of caregivers belonged to the age group of 31-40 years, and 66.67% were females and 33.33% with. 86.67% participated in this study were Married. The knowledge score gained by the respondents in the results shows that the mean value of knowledge in pre test was 7.43 and at post assessment was 13.77 since the "P" value for the test is less than 0.05. The study concluded that structured education programme was highly effective to improve the knowledge score and to improve the attitude score of subjects/ caregiver towards colostomy care of patient.

1.2 Statement of the Problem

"A study to evaluate the effectiveness of instructional package on knowledge regarding colostomy care among care givers in pediatric post operative ward at institute of child health and research centre, Government Rajaji Hospital, Madurai".

1.3 Objectives of the Study

- To assess the level of knowledge regarding colostomy care among care givers of children with colostomy in s pediatric post operative ward at Government Rajaji Hospital, Madurai.
- To evaluate the effectiveness of instructional package on colostomy care among care givers children with colostomy in pediatric post operative ward at Government Rajaji Hospital, Madurai.
- To associate the level of knowledge regarding colostomy care among care givers of children with colostomy in paediatric postoperative ward at Government Rajaji Hospital ,Madurai with their selected socio demographic variables.

1.4 Hypothesis

H_1: There is a significant difference between the pretest and posttest level thof knowledge regarding colostomy care among care givers of children with colostomy in paediatric post operative ward at Government Rajaji Hospital Madurai.

H_2: There is a significant association between the level of knowledge regarding colostomy care among care givers of children with colostomy in pediatric post operative ward with their selected socio demographic variables.

1.5 Operational Defination

Effectiveness

In this study effectiveness refers to the significant gain of knowledge regarding colostomy care among care givers of children with colostomy after administration of instructional package as measured by structured knowledge questionnaires.

Instrutional Package:

In this study it refers to learning on meaning of colostomy, types, indications, hygiene, diet pattern, and stoma care prepared after extensive literature review and teaching with the help of learning material to care givers of children with colostomy.

Knowledge Regarding Colostomy Care:

In this study, it refers to information known by the mothers regarding colostomy care (eg) causes of infection or bleeding.

Care Giver:

In this study it refers to mother who is stay with the children with colostomy and provides care to their children undergone colostomy surgery.

Pediatric Post Operative Ward

In this study it refers to the ward in which children received from operation theatre after performed colostomy procedure.

1.6 Assumption

- Care givers of children with colostomy may have various level of knowledge on colostomy care.
- Care givers of children with colostomy may provide care according to their instructional package.

1.7 Delimitation

The data collection period was limited to 4 to 6 weeks.

1. The study was limited to care givers of children those who stayed in the hospital for seven days from the date of surgery in pediatric post operative ward at Institute of Child Health, Research Centre at Government Rajaji Hospital, Madurai.

1.8 Projected Outcome

The care givers of colostomy children will gain the knowledge about colostomy care after giving instructional package. The findings of the study helps the health care professionals to use this instructional pacakage in a cost effective manner in all health care settings.

CHAPTER-II

REVIEW OF LITERATURE

CHAPTER - II

REVIEW OF LITERATURE

The primary purpose of review of relevant literature is to give broad background knowledge and understanding of the information that is available related to the research problem of interest.

Denise F Polit (2004) mentioned that a review of literature helps to lay the foundation for the study and also inspires new research ideas. It also place a role at the end of the study, when the researchers are trying to make sense of their findings. An early literature review provides leaders background for understanding of current knowledge regarding a topic and illuminates the significance of the new study.

This chapter includes review of literature for the study which is organized under the following headings:

Review of Literature

2.1 Literature Review related to Colostomy in children

2.2 Literature Review related to knowledge regarding colostomy care among care givers.

2.3 Literature Review related Instructional Package on knowledge regarding colostomy care among care givers.

2.4 Literature review related to colostomy complications

2.5 Conceptual Framework

2.1 Literature Review Related to Colostomy in Children

Osifo OD, Osaigbovo EO, Obeta EC (2009) conducted a retrospective study on "Colostomy in children: Indications and common problems in Benin City, Nigeria." Congenital anomaly was the major indication and accounted for 40 (87%) with associated higher morbidity and mortality and an observed significant statistical difference compared with the acquired indications (P<0.0001). Anorectal anomaly accounting for 22 (48%) and Hirschsprung's disease 18 (39%) were the congenital indications. Morbidity and mortality were mostly associated with children that had anorectal anomaly (P=0.0021). Acquired indications were mainly rectovaginal fistulae, perineal and left colonic injury which accounted for 6 (13%). Skin excoriation 39 (85%), colostomy prolapse 15 (33%) and persistent odour 21 %) (46resulted in poor acceptance by 10 (22%) parents/caregivers.

Ekenze SO, Agugua-Obianyo NE, Amah CC (2008) conducted a study on "Colostomy for large bowel anomalies in Children: a case controlled study." The study revealed the morbidity and mortality of colostomy formation and closure for large bowel anomalies. Evaluation of 182 colostomies and 146 colostomy closures was performed in children from January 1995 to December 2004. Hirschsprung's disease (106) and anorectal malformation (76) were the large bowel anomalies required colostomy. The result revealed that, the complications were not dependent on the primary indication but prolapse occurred more frequently in children with Hirschsprung's disease who had colostomy after 5 years of age (P<0.001). Loop colostomy had higher complication rate than defunctioning colostomy (P<0.001) .This indicated that it was largely due to delayed presentation in Hirschsprung's disease and may be associated with increased morbidity. Loop colostomy was associated with higher rate of complication and as much as possible should be performed less often.

Carneiro FF et al., (2007) conducted a retrospective study on "Colostomy in children: Indications and common problems in Benin City, Nigeria." Congenital anomaly was the major indication and accounted for 40 (87%) with associated higher morbidity and mortality and an observed significant statistical difference compared

with the acquired indications (P<0.0001). Anorectal anomaly accounting for 22 (48%) and Hirschsprung's disease 18 (39%) were the congenital indications. Morbidity and mortality were mostly associated with children that had anorectal anomaly (P=0.0021). Acquired indications were mainly rectovaginal fistulae, perineal and left colonic injury which accounted for 6 (13%). Skin excoriation 39 (85%), colostomy prolapse 15 (33%) and persistent odour 21 (46%) resulted in poor acceptance by 10 (22%) parents/caregivers. This indicated that adequate preoperative counselling, skin protective paste and regular washing of colostomy site alleviated the complications.

Ekenze SO, Agugua-Obianyo NE, Amah CC (2007) conducted a study on "Colostomy for large bowel anomalies in Children: a case controlled study." The study revealed the morbidity and mortality of colostomy formation and closure for large bowel anomalies. Evaluation of 182 colostomies and 146 colostomy closures was performed in children from January 1995 to December 2004. Hirschsprung's disease (106) and anorectal malformation (76) were the large bowel anomalies required colostomy. The result revealed that, the complications were not dependent on the primary indication but prolapse occurred more frequently in children with Hirschsprung's disease who had colostomy after 5 years of age (P<0.001). Loop colostomy had higher complication rate than defunctioning colostomy (P<0.001) .This indicated that it was largely due to delayed presentation in Hirschsprung's disease and may be associated with increased morbidity. Loop colostomy was associated with higher rate of complication and as much as possible should be performed less often.

Sheikh MA, Akhtar J, Ahmed S. (2006) conducted a descriptive study on "Complications / problems of colostomy in infants and children. Most of the patients were operated due to anorectal malformations (n=71) and Hirschsprung's disease (41).

Complications/problems related to colostomy occurred in 67.7% patients. Prolapse of stoma was more common in transverse loop colostomies. Four (3.3%) patients died. Problems associated with colostomy construction were skin excoriation and chronic blood loss. This indicated that construction of colostomy in paediatric patients carries high frequency of complications/problems and requires careful technique. The role of stoma care clinic and enterostomal therapist can be instrumental in preventing problems associated with colostomy information on mother and baby. Thus an intervention should be aimed at improving self-efficacy and resources of the mothers with a focus on practical knowledge.

Chandramouli B, Srinivasan K, Jagdish S, Ananthakrishnan N. (2004) conducted a study on "Morbidity and mortality of colostomy and its closure in children" in Pondicherry, India.146 colostomies were performed in 86 neonates, 23 infants, and 37 children older than 1 year. Children underwent colostomies for anorectal malformation (84), Hirschsprung's disease (47), and other miscellaneous (15).Of these, 17 (11.6%) had early complications, and 80 (69.8%) had stomal complications. Sigmoid colostomy had a lower malnutrition rate than transverse colostomy (34.9% v 16.9% P =.009). Among the 56 children who underwent colostomy closure, major complications include death (1.8%), anastomotic leak (7.1%), and wound infection (12.6%). This indicated that proper stomal care, regular nutritional assessment, and early closure of the colostomy would minimize morbidity and mortality of colostomy and its closure.

2.2 Literature Review Related to Knowledge Regarding Colostomy Care among Care Givers

Lo Menzo E, Martinez JM, Spector SA, Iglesias A.et.al (2008) conducted a study on "Use of biological mesh for a complicated paracolostomy hernia".Parastomal hernias were the most frustrating complications of permanent colostomies. The use of mesh was indicated, especially in the setting of multiple recurrences. The mesh was around the colon to prevent small bowel herniation. The patient developed a small seroma postoperatively, which resolved spontaneously, the patient had no evidence of recurrence, he was pain free by using biological mesh.

Cronin.E (2008) conducted a study on "Colostomies and use of colostomy appliances." The surgical formation of a colostomy is indicated as part of the treatment of various conditions. 146's stoma appliances bear no resemblance to those worn three or four decades ago when colostomy, ileostomy and urostomy bags were made entirely from rubber. The patient had two to three bags in circulation at a time, would interchange them allowing for the washing and drying of the previous one, thus minimizing odour and potential perishing of the rubber. They were large and bulky and the outlet resembled that of a hot-water bottle stopper or a cap from an old soda bottle that required the insertion of coinage (2p) to open it. The study explores that the range of colostomy appliances and management must be available to the nurse when caring for patients with a colostomy.

Banu T, Talukder R, Chowdhury TK, Hoque M (2007) conducted a study on "Betal leaf in stoma care." commercially available devices such as ostomy bag, either disposable or of longer duration are usually used were expensive, particularly in countries like Bangladesh. They found an alternative for stoma care, betel leaf, which was suitable for Bangladeshis. The leaves were reused after cleaning. Leaves were

changed every 2 to 3 days. A total of 623 patients had exteriorization of bowel. Of this total, 495 stomas were cared for with betel leaves and 128 with ostomy bags. 13 patients (2.6%) developed skin excoriation. There were no allergic reactions. Of the 128 patients using ostomy bag, 52 (40.65%) had skin excoriation. Of these 24(18.75%) children developed some allergic reactions to adhesive. The result revealed that the in care of stoma, betel leaves are cheap, easy to handle, nonirritant, and nonallergic.

Ameh EA, Mshelbwala PM, Sabiu L, Chirdan LB (2006) conducted a prospective evaluation study on "Colostomy in children-an evaluation of acceptance among mothers and caregivers in a developing country." A structured questionnaire was administered to 57 parents and caregivers of children with colostomies (41 boys and 16 girls). The indication for colostomy was anorectal malformation in 28 children and Hirschsprung's disease in 29. 44 respondents (77%) found the colostomy and its management acceptable. 13 (23%) found the colostomy unacceptable, mainly because of a feeling of social isolation. Problems the respondents complained of included disturbing smell (17, 30%), frequent change of the cloth napkin used as colostomy appliance (15, 26%) and intermittent bleeding from the stoma (4, 7%). This indicated that colostomy in children was acceptable to most parents in our environment. Although some parents found it unacceptable. Hence adequate explanation and counselling may modify their view.

Barreire SG, Oliveira OA, Kazama W, Kimura M, Santos VL (2003) conducted a study on "Quality of life of children with stomas: the children and mothers' point of view." The specific data were obtained using questionnaire. Of 26 questions, 18 of them were distributed among four factors: Functions, Family, Autonomy and Leisure. The result revealed that 20 children, aged 4 to 12 years, from a Specialized Outpatient Ostomy Care Center for Children and their respective mothers answered the

questionnaire. Clinical profile shows a predominance of urinary stomas (55.0%) caused by congenital diseases (60.0%). Related to quality of life, the total mean scores were 51.95 (SD = 7.90) and 49.60 (SD = 5.60), respectively for children and mothers, without statistically significant difference. It indicated that the study improved the comprehension about quality of life of children with stoma as well as some of these aspects on their mother's point of view. A co-relational survey was conducted on 50 ostomates from All India Institute of Medical Sciences; Delhi to assess the quality of life (QoL) of ostomates and to develop guidelines to improve quality of life of ostomates for the health professionals was undertaken during the year 2005-2007. Purposive sampling technique was employed to select the sample subjects. The study revealed that majority of the ostomates' possessed best quality of life. There was a significant association between QoL score of ostomates with age, sex, duration of surgery, education, income, and occupation. There was no significant association between QoL scores of ostomates and marital status and type of ostomy. This study concludes that nurses have a great role to play in the physical, psychological, economical, social, familial, and sexual aspects in the care of ostomates and to offer psychological support and empathy, to reinforce coping skills to promote an optimal quality of life and a great role to influence and educate all the aspects of care to the patients and their relatives.

2.3 Literature Review Related to Instructional Package on Knowledge Regarding Colostomy Care among Care Givers

Wani. S., (2010) conducted an experimental study was done in China to assess the effectiveness of health education approach in reducing the anxiety of patients with rectal carcinoma after colostomy. 100 patients with rectal carcinoma after colostomy were randomly divided into observation group and control group. The patients in control group were educated routinely and those in the observation group received health education approach at different periods of hospitalization. The study

found that the rates of anxiety in the observation group was significantly lower than that in the control group 1 day after hospitalization, one day before operation, 3 weeks after operation and before discharge (p=0.05).This study concludes that health education for rectal carcinoma patients after colostomy via health education approach can effectively relieve the anxiety of patients, reduce the rate of anxiety and improve the effect of health education.

Singhi P. Singhi. S (2009) conducted a descriptive study was done in Chandigarh to develop educational aid for parents of children having colostomy and test its effectiveness. Two educational aids in the form of booklet and a video film/ computer disc (CD) were developed and used to teach care of colostomy to 120 parents. The sample constituted 3 groups (n=40 each) using the booklet, video film and a combination of booklet and video film for teaching to the parents. The mean pretest and post test scores of booklet, video film, and a combination of booklet and video are (Mean=3.53, 6.05, SD=1.62,1.24) and (Mean=3.45,5.70, SD=1.62,1.24) and (Mean=4.18,6.28, SD=1.18,1.48) respectively. It was found that the developed education aid were significantly effective ($p<0.05$) in order to provide knowledge and skills to the parents.

A randomized controlled trial compared 2 methods of ostomy care instruction, traditional nurse instruction versus 2 session nurse instruction plus DVD for teaching ostomy care, to determine their effect on patients' knowledge, skills, and confidence related to postoperative ostomy care. Eighty-eight adults with newly created ostomies were randomly assigned to 1 of 2 groups. Of the 88 enrolled patients, 68 completed the study. There were 23 colostomy and 45 ileostomy patients in the sample and the study setting was 2 acute care hospitals in the Midwestern United States. A posttest-only experimental design was used for the study. Traditional education comprised 3

WOC nurse-led instruction sessions and the experimental intervention comprised 2 nurse-led instruction session plus DVD instruction. a written test of ostomy knowledge, a self- care skills demonstration, and a visual analog scale rating their confidence with ostomy self- care. There were no significant differences between the 2 teaching methods or type of ostomy with regard to knowledge of ostomy care (F 3, 64=1.308, P=0.28), ostomy care skills (F3,64=0.163,P=0.92), or confidence in performing ostomy self- care (F3,64=0.629, P=0.59).The study concluded that when teaching first time ostomy patients postoperative self- care, a nurse instruction plus DVD method is as effective as nurse instruction alone.

Song – Linh (2008) conducted a comparative study compared the costs and effectiveness of enterostomal education using a multimedia learning education program (MLEP) and a conventional education service program (CESP). This study used a randomized experimental design. A total of 54 stoma patients were randomly assigned to MLEP or CESP nursing care with a follow-up of one week. Effectiveness measures were knowledge of self care (KSC), attitude of self care (ASC) and behavior of self care (BSC). The costs measures for each patient were: health care costs, MLEP cost and family costs. The study found significantly better outcomes in the effectiveness measures of KSC, ASC and BSC in MLEP group than in CSEP group. Additionally, the total social costs for CESP patient were higher than MLEP patient. The cost effectiveness ratios in these two groups showed that the MLEP model was better than the CESP model after one intervention cycle. In addition, the Incremental Cost Effectiveness Ratio was-20:99.The study concludes that due to the better cost-effectiveness ratio of MLEP, hospital policy makers may consider these results when choosing to allocate resources and develop care and educational interventions.

2.4 Complications of Colostomy in children

Barreire S.G. Oliverira conducted study (2008): This study evaluated the complications of colostomy and its closure in infants and children. One hundred forty-six colostomies were performed in 86 neonates, 23 infants, and 37 children older than 1 year. These children underwent colostomies for anorectal malformation (84), Hirschsprung's disease (47), and other miscellaneous (15) conditions like colonic atresia, volvulus, rectal tuberculosis, traumatic rectal perforation, and intestinal obstruction caused by ascariasis. Of these, 17 (11.6%) had early complications, and 80 (69.8%) had stomal complications. Three patients died, but only 1 death was directly related to colostomy. Colostomy prolapse, peristomal excoriation, and malnutrition were the major complications. The complications were not dependant on the children's age or primary indication. Sigmoid colostomy had a lower malnutrition rate than transverse colostomy (34.9% v 16.9% P =.009). Among the 56 children who underwent colostomy closure, major complications include death (1.8%), anastomotic leak (7.1%), and wound infection (12.6%).

A divided sigmoid colostomy should be performed whenever possible. Proper stomal care, regular nutritional assessment, and early closure of the colostomy would minimize morbidity and mortality of colostomy and its According to the literature, anastomotic dehiscence consecutive to colostomy closure in the pediatric population can occur with a frequency that varies from 0 to 12.5%; and wound infection from 0.4 to 45% [1–16]. Other complications such as bleeding [3, 14], anastomotic stricture [2, 13, 15], and death [7, 9, 12] have also been reported in the pediatric population. "

Andrea Bischoff et.al (2009)conducted a study: Colostomy is an operation frequently performed in paediatric surgery. Despite its benefits, it can produce

significant morbidity. In a previous publication we presented our experience with the errors and complications that occurred during cases of colostomy creation. We now have focused in the morbidity related to the colostomy closure. The technical details that might have contributed to the minimal morbidity we experienced are described. The medical records of 649 patients who underwent colostomy closure over a 28-year period were retrospectively reviewed looking for complications following these procedures. Our perioperative protocol for colostomy closure consisted in: clear fluids by mouth and repeated proximal stoma irrigations 24 h prior to the operation. Administration of IV antibiotics during anaesthesia induction and continued for 48 h. Meticulous surgical technique that included: packing of the proximal stoma, plastic drape to immobilize the surgical field, careful homeostasis, emphasis in avoiding contamination, cleaning the edge of the stomas to allow a good 2-layer, end-to-end anastomosis with separated long-term absorbable sutures, generous irrigation of the peritoneal cavity and subsequent layers with saline solution, closure by layers to avoid dead space, and avoidance of hematomas. No drains and no nasogastric tubes were used. Oral fluids were started the day after surgery and patients were discharged 48-72 h after the operation. The original diagnoses of the patients were: anorectal malformation (583), Hirschsprung's disease (53), and others (13). 10 patients (1.5%) had complications: 6 had intestinal obstruction (5 due to small bowel adhesions, 1 had temporary delay of the function of the anastomosis due to a severe size discrepancy between proximal and distal stoma with a distal microcolon and 4 incisional hernias. There were no anastomotic dehiscences or wound infection. There was no bleeding, no anastomotic stricture and no mortality. Based on this experience we believe that colostomy closure can be performed with minimal morbidity provided a meticulous technique is observed.

Sabine Irtan et.al (2011) conducted study: The aim of the study was to evaluate the morbidity rate of stoma in children diagnosed with chronic intestinal pseudoobstruction (CIPO) and try to determine risk factors. Twenty-two children (65%) of 34 referred to our center between 1988 and 2008 had a stoma. They were compared with 22 other children referred for another pathology necessitating a stoma. The incidence of stomal prolapse in CIPO children was 45% vs 9% in non-CIPO children (P = .01). Prolapse occurred between the first postoperative day and the 10th postoperative month, with a median of 2 months. Surgical management was required in 60%, with an intestinal necrosis rate of 20% leading to intestinal resection. No mortality was noted. No risk factors favoring prolapse in CIPO children were identified. Children with CIPO have a high rate of stomal prolapse with an increased risk of intestinal necrosis. Careful management of the stoma is necessary to avoid the risk of intestinal resection, which may aggravate the underlying intestinal disorder.

Tadao Okada et.al (2011) conducted a study: Aim: Incarcerated stomal prolapse is a rare complication of enterostomy. Numerous procedures have been described, such as additional laparotomy to fix the intraabdominal intestine in place, enterostomy revision, or correction of the prolapse following stoma creation. The authors report successful managements by stomal reconstruction and discuss several clinical points, including the techniques of surgical revision for incarcer-ated stomal prolapse in loop enterostomy. Patients: Case 1) A female infant weighing 2755 g was delivered at 34 weeks of gestation. On the first day after birth, a right supra-abdominal transverse incision of 10 cm in diameter was used for transverse loop colostomy in a cloacal malformation. Two centimeters of the stomal loop was approximated with sutures to prevent evisceration of the small intestine between the 2 limbs of the loop. Interrupted sutures of 5-0 absorbable monofilament secured the

seromuscle of the colon to the perito-neum and fascia, and also to the skin. The distal limb of the colostomy prolapsed 11 months after birth. The physical findings revealed that 10 cm of the distal limb was intussuscepted. Case 2) A female infant weigh-ing 2550 g was delivered at 39 weeks of gestation. A radiological examination by contrast enema showed no spastic rectum and colon, as in Hirschsprung's disease. Under the laparotomy of a right supra-abdominal transverse incision of 5 cm in diameter, loop ileostomy was performed at 30cm on the proximal side of the cecum such as Case 1. Subsequently, the proximal limb of the ileostomy prolapsed 2 days after operation. The physical findings revealed that 10 cm of the proximal limb was intussuscepted. New enterostomy for-mation: Divided enterostomy was performed with 3-cm stitching of each limb. The stomal site was moved to the inside from the previous stomal site to oversew and fix by the rectal fascia. The children have been well without trouble since undergoing the new eneterostomy formation. Conclusions: Operation to repair the prolapse of a stoma is advised if it causes problems. We found that simple mobilization of the bowel and ex-cision of the redundant bowel provided a satisfactory result in the present cases.

CONCEPTUAL FRAME WORK

Good research usually indicates research findings in to an orderly, coherent system. Such integration typically involves linking research and existing knowledge through review of prior research on a topic and by identifying or developing an appropriate conceptual frame work.

Conceptual framework provides the investigator the guidelines to proceed in attending the objectives of the study based on theory. It is a scientific representation of the steps, activities and outcome of the study.

The present study aim at developing and assessing the effectiveness instructional package on knowledge regarding Colostomy care among care givers in pediatric post operative ward.

The conceptual framework for this study was developed by applying Ludwig Von Bertalanffy's General system theory. According to this general system theory, a system consists of a set of interacting components, all contributing with the overall goal of the system. Any system consists of input, through process and output. The study aims at developing and evaluating the effectiveness of instructional package on knowledge regarding Colostomy care among care givers of Colostomy children. According to this theorist Input refers to the types of information that enters into the system from the environment through its boundaries. In this study, the input includes demographic variables and assessment structured questionnaires. Throughput is the operational phase. It is the process that allows the input to be transformed. In this study, throughput is the transformation of knowledge to the people. Output is any information that learns the system and enters to the environment through system boundaries to find out adequate and inadequate knowledge. In this study assessing of the post test knowledge regarding the intervention.

The process of development of instructional package includes preparatory phase as input, the implementation phase as process and evaluation and feedback of system as the output.

Input:

According to the theorist, input refers to the types of information that enters into the system from the environment through its boundaries.

In this study the input includes demographic variables such as mother's age, sex, education, occupation, family structure, family income, marital status, and living place and also assessment of knowledge by administering structured knowledge questionnaires regarding knowledge regarding Colostomy care.

Throughput Process:

In this study, throughput is the information of knowledge among care givers of Colostomy children by the way of teaching regarding Colostomy care using the prepared instructional package.

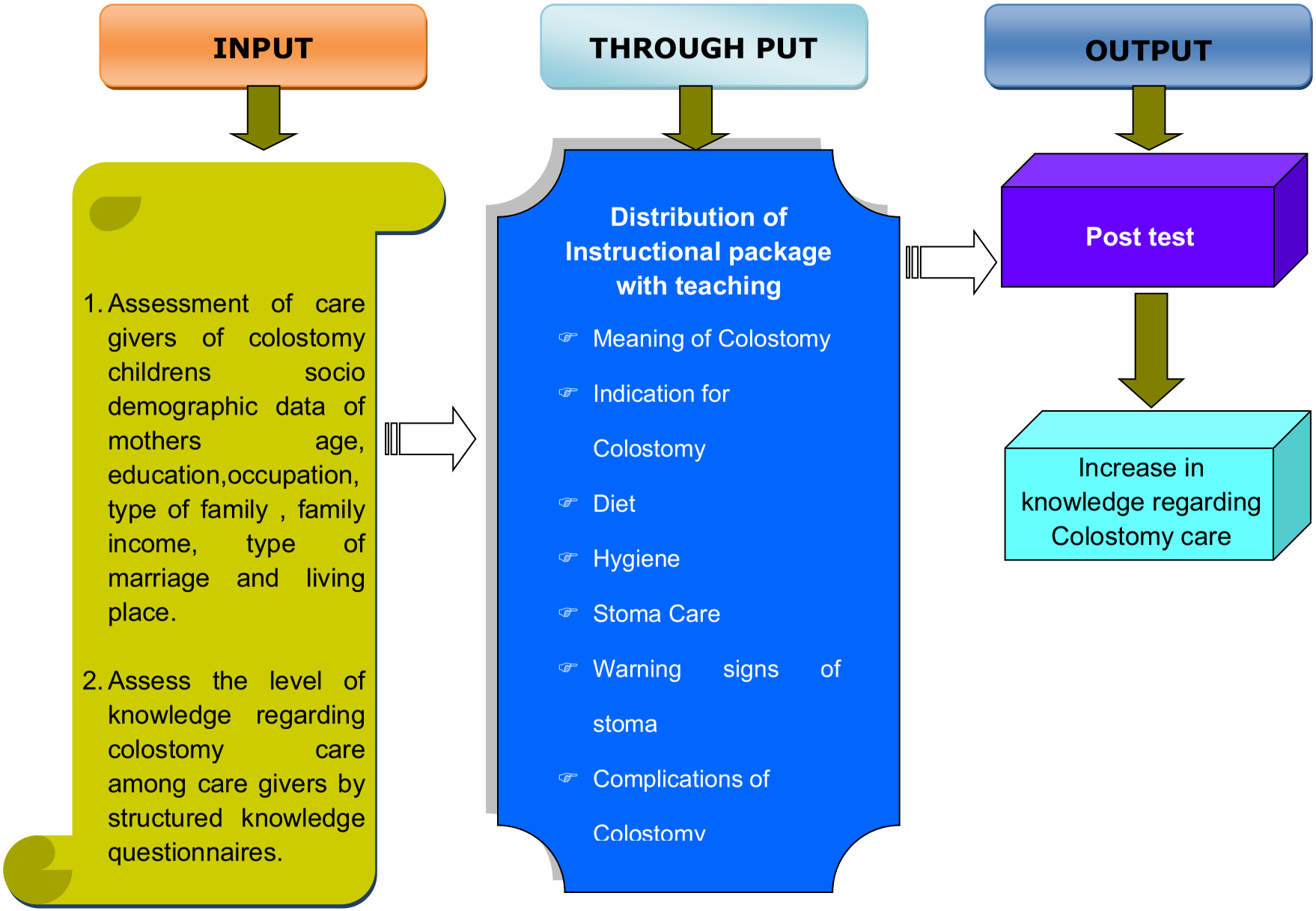
In this study the investigator distributes instructional package to the care givers of the Colostomy children about Colostomy care which includes meaning of colostomy, diet, hygiene, colostomy types, indication, causes, stoma care, warning signs of stoma and prevention of infection.

Output:

According to the theorist in the information that leave the system enters the environment through the system. In this study it refers to improve the knowledge regarding colostomy care among care givers of children with colostomy. In this study the output is measured by structured questionnaire.

Feedback:

The feedback is the environment responses to the system. Feedback may be positive or negative or neutral. In this study input regarding assessment of knowledge by administering structured questionnaires about Colostomy care. Through process was the activity phase were instructional package along with teaching program, was administered regarding meaning of Colostomy care, types, indication, stoma care, complications. Output was the change in knowledge regarding Colostomy care after the instructional package with teaching program which was measured by using a structural interview questionnaire on knowledge of Colostomy care. Feedback emphasized to strengthen the input and throughput. It is necessary if the result showed any inadequate knowledge regarding Colostomy care among care givers of Colostomy children.



LUDWIG VON BERTALANFFY'S GENERAL SYSTEM THEORY

CHAPTER-III

RESEARCH

METHODOLOGY

CHAPTER -III

METHODOLOGY

Research methodology is a pathway by which the researcher intended to solve the research problems systematically. It involves the review of procedures in which the investigator starts from initial identification of the problem to its final conclusion. This chapter deals with research approach, research design, setting f the study, study population sample size, sampling technique and criteria for sample selection. It also deals with development of tool, procedure for data collection and plan for data analysis.

3.1 Research Approach

It is a quantitative approach.

3.2 Research Design

Pre experimental design was selected to assess effectiveness of instructional package regarding colostomy care among care givers of colostomy children. One group pretest posttest design as used.

Group	Pretest	Intervention	Posttest
Experimental group	O_1	X	O_2

O1 - Pretest

O2 - Posttest

X - Instructional Package on knowledge of colostomy care.

3.3 Research Variables

Independent and Dependent variables were identified in this study.

Independent variable

Instructional Package on knowledge regarding colostomy care.

Dependent variable

Knowledge of colostomy care

3.4 Setting of the Study

The study was conducted in the pediatric post operative ward at Institute of Child health and Research Center, Government Rajaji Hospital, Madurai. The hospital was started in the year 1940. It is approximately 2528 bedded multispecialty hospital. It is biggest hospital in south Tamilnadu with adequate transport facilities. The pediatric wing is named as Institute of Child Health and Research Centre which has six medical units and two surgical units. The bed strength of Institute of Child Health and Research Center is 200 in which pediatric medical wing is 120bedded. This Institute has providing censorious service to the people of south districts of Tamilnadu.

3.5 Population

Target Population

The target population of the study was care givers of children with colostomy

Accessible Population

The accessible population comprises of care givers of children with colostomy in pediatric post operative ward at Institute of Child Health and Research Centre and Government Rajaji Hospital, Madurai.

3.6 Sample

The care givers of children with colostomy those who are fulfilling the inclusion criteria in pediatric post operative ward at Institute of Child Health and Research Centre at Government Rajaji Hospital, Madurai.

3.7 Sample Size

The total sample of the study consists of 30 care givers of colostomy children in Institute of Child Health and Research Centre at Government Rajaji Hospital, Madurai.

3.8 Sampling Technique

Samples were selected by consecutive sampling technique

3.9 Criteria for Sample Selection

The following criteria are used in this study to select the samples.

Inclusion Criteria:

- Care givers of children with colostomy who where willing to participate
- Care givers of children with colostomy those who where available during the period of data collection
- Care givers of y children with colostomy who where able to read and speak Tamil.

Exclusion criteria

- Caregivers of Children with colostomy is critically ill.
- Care givers those who where illiterate
- Care givers of children with colostomy those who where medical professionals

3.10 Research Tool

Development of the tool

Data collection tool is the instrument that could best obtain the data significant to the study.

The tool used for this study is self administered questionnaire framed by the researcher. The tool was prepared based on the objectives of the study using the review of literature and related studies, books and opinions from the experts.

Description of the tool

Section - A

Socio demographic variable such as care givers age, gender, education, occupation, family structure, monthly income, marital status and living place.

Section - B

A Structured knowledge questionnaire was used. It contains 20 questions. If the answer is correct, the sample will get '1' mark.If it is wrong, the sample will get '0' mark.

3.11 Scoring procedure

Level of Knowledge	Scores
Very low	0 - 20%
Low	21 - 40%
Average	41 - 60%
High	61 - 80%
Very high	81 - 100%

3.12 Testing of Tool:

Content Validity

The content validity of the tool was obtained by the giving the tool to five experts in the field of nursing and Assistant surgeon in Pediatric department at Institute of Child Health and Research Centre, Government Rajaji Hospital, Madurai. Experts validated the clarity, relevance, comprehensiveness and appropriateness of the content. Based on their suggestions reframing of the tool was done.

3.13 Reliability

Reliability of the tool is the degree of consistency with which it measures the attribute it is supposed to be measuring. Reliability was established by split half method, which measures the co efficiency of internal consistency. The reliability of the test was calculated using Karl Pearson's correlation formula. The reliability obtained for the knowledge questionnaire was r = 0.89. Hence the tool was considered highly reliable for the study.

Ethical Consideration

The research proposal was approved by the experts of the Dissertation Committee of College of Nursing, Madurai Medical College, Madurai and Institutional Review Board, for conducting the pilot study and main study. The formal permission was obtained from the Director, Institute of Child health and Research Centre, Government Rajaji Hospital, Madurai.. The committee suggested the researcher to continue the study.

3.14 Pilot Study

Pilot study was conducted in Pediatric post operative ward after getting permission from the Director, Institute of Child health and Research centre, Madurai from 1.6.2015 to 7.6.2015. Ten care givers of children with colostomy were selected in the Pediatric Post operative ward. Brief instruction was given about self and the study was explained. Written consent was obtained from the care givers of children with colostomy and confidentiality was assured. The researcher taught about the colostomy care to the care givers of children with colostomy. After finishing the session the care givers of colostomy children were assessed by pretest knowledge questionnaire. The findings of the pilot study revealed that 50% of care givers of children colostomy had moderately adequate knowledge and 50% had inadequate knowledge in the pretest. After the intervention instruction package on knowledge regarding colostomy care the post test level of knowledge revealed that 60% had adequate knowledge, 40% had moderately adequate knowledge. The pilot study findings reveled that setting was feasible and tool was applicable to conduct the main study.

Intervention

Instructional package regarding colostomy care daily in the morning about 30 min for seven consecutive day.

3.15 Data Collection Procedure

After obtaining permission from Principal, College of Nursing, Director, Institute of Child health and Research Centre, Government Rajaji Hospital to conduct the study. The investigator introduced herself to the care givers of colostomy with children and explained the purpose of the study and ascertained the willingness of the participants. The respondent will be assured anonymity and confidentiality. Through consecutive method samples were collected. Period of study was for 4-6 weeks. Total samples size was 30. The researcher selected the care givers of children with colostomy surgery by using consecutive sampling technique, in which approximately 4-6 subjects were selected as per the inclusion criteria, on the 1st post operative day. Pre test was conducted on 2nd post operative day instructional package was given with teaching to the group and the doubt were clarified for the following days and there after post test was carried out on the seventh day among the care givers of children with colostomy. The same procedure was repeated for all the subjects.

3.16 Plan for Data Analysis

Descriptive statistics:

The basic statistical techniques, such as mean, standard deviation, range and mean score percentage of described demographic variables will be computed and interpreted suitably.

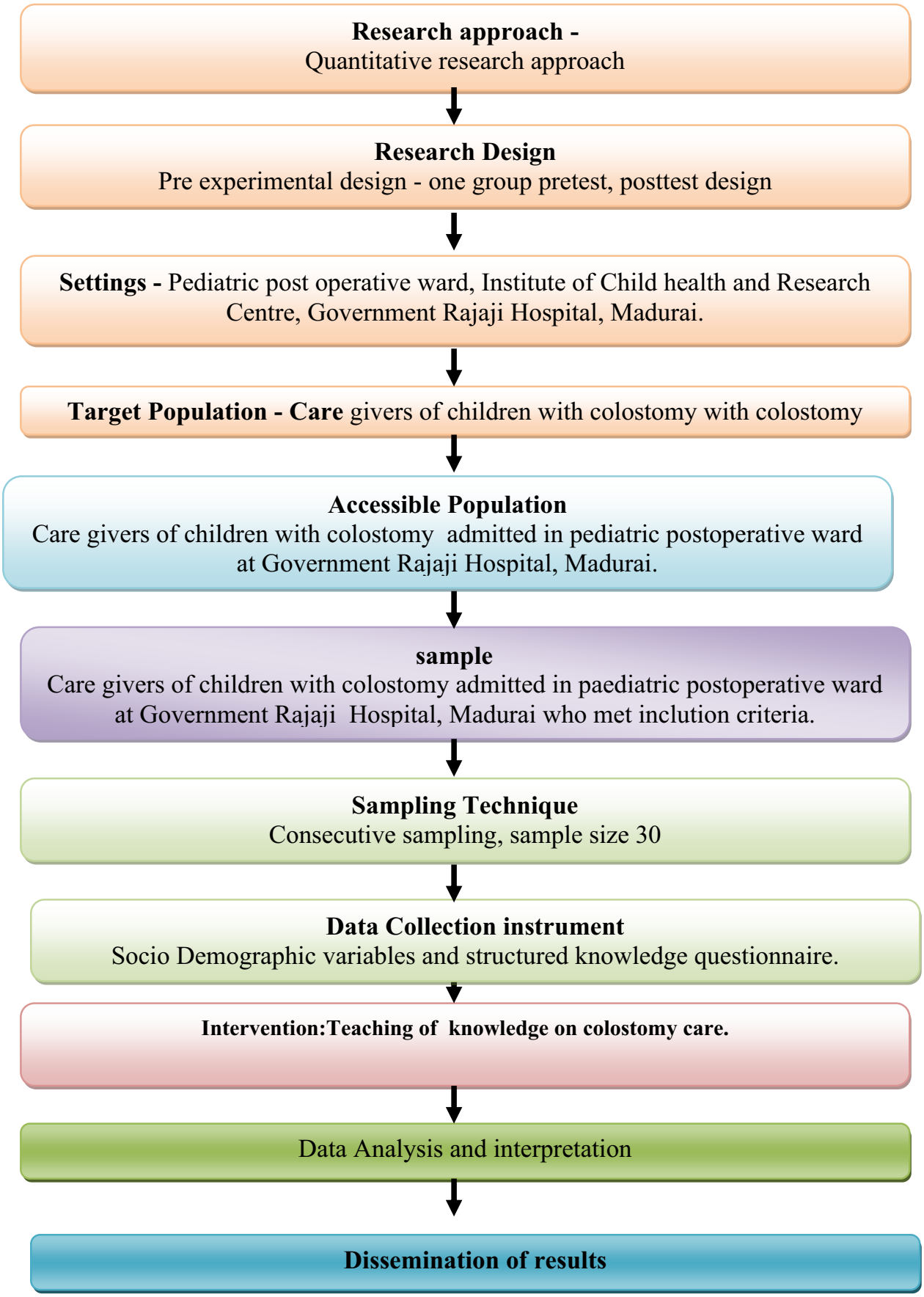
Inferential statistics

- Paired 't' test used to compare pre test and posttest knowledge score
- Chi-square test used to find out the association between the level of knowledge and selected socio demographic variables of care givers of colostomy children.

3.17 Protection of Human Rights

Research proposal was approved by the dissertation committee of College of Nursing, Madurai Medical College, Madurai. Ethical committee approval was obtained from the Institutional review Board, Government Rajaji Hospital, Madurai on 24.09.2014. And also the permission was obtained from Director, Institute of Child health and Research Centre, Government Rajaji Hospital, Madurai. An informed consent from the parents of each study sample was obtained before starting the data collection. Positive benefits were explained to all the study samples. They were also explained that they may withdraw from the study at any time without any penalty. Assurance was given to the samples that confidentiality would be maintained throughout the study.

SCHEMATIC REPRESENTATION OF THE STUDY



CHAPTER IV

DATA ANALYSIS

AND

INTERPRETATION

CHAPTER - IV

DATA ANALYSIS AND INTERPRETATION

This chapter deals with the analysis and interpretation of the data collected. Analysis is a method for rendering quantitative, reliable, meaningful and providingsssss intelligible information. So that the research problem can be studied and tested which including the relationship between the variables.

Organizatio of Data

The data collected was analyzed using appropriate statistical methods, tabulated and the results are described as follows.

Section – I Distribution of subjects according to their socio demographic variables

Section - II Description of pretest level of knowledge regarding colostomy care among care givers of children with colostomy

Section- III Effectiveness of the instructional package on knowledge regarding colostomy care among care givers of colostomy with children.

Section-IV Association between level of knowledge regarding colostomy care among care giver of children with colostomy and their selected socio demographic variables.

SECTION - I

Distribution of subjects according to socio demographic variables

Table - 1

Frequency and percentage distribution of demographic variables among care givers of children with colostomy n = 30

S.No	Demographic variable	Frequency (f)	Percentage (%)
1.	Age of mother		
	a. 20 - 25	14	46.7%
	b. 26 - 30	12	40%
	c. 31 – 35	4	13.3%
2.	Education of mother		
	a. Primary	7	23%
	b. Middle	23	77%
3.	Occupation		
	a. Home maker	19	63%
	b. Private worker	11	37%
4.	Type of family		
	a. Nuclear family	18	60%
	b. Joint family	12	40%
5.	Family income		
	a. Below Rs.5000	8	27%
	b. Rs.5001 - 10000	13	43%
	c. Rs.10001 – 20000	9	30%
6.	Type of marriage		
	a. Relative	16	53.3%
	b. Non relative	14	46.7%
7.	Place of living		
	a. Rural	21	70%
	b. Urban	9	30%

The above table reveals that socio demography variables among care givers of children with colostomy those who where participant in the study.

In considering the **age of the mother** 14 (46.7%) were belongs to 20-25year of age, 12 (40%) were in 26-30years and remaining 13% were in 31-35years of age.

With respect to **education** 23(77%) were belongs to middle school education, 7 (23%) were belongs to primary school education.

On the basis of **occupation 19(**63%) were belongs to home maker, 37% were worked in private job.

Considering **family type** 18 (60%) were from nuclear family, 12 (40%) were from joint family.

With the view of **family income 13 (**43%) were earned between 5001 to 1000, 9 (30%) of mothers were earned between 10001 to 20000 and remaining 8 (27%) were earned below 5000.

Based on the **place of living place** 21 (70%) were lived in Rural places and 9 (30%) were lived in urban places.

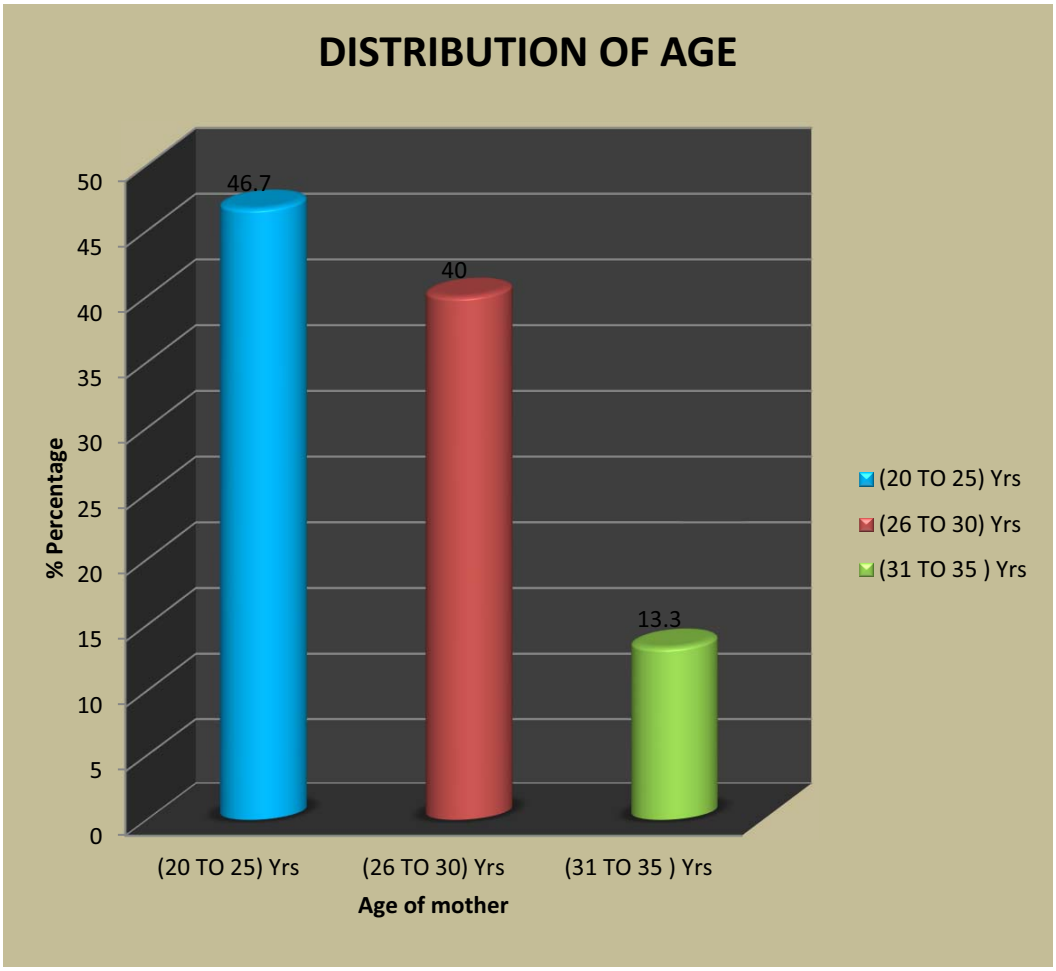


Fig. 1. Percentage Distribution for Age of Mothers

The above diagram shows that the **age of the mother** 14 (47%) were belongs to 20-25year of age, 12 (40%) were in 26-30years and remaining 4 (13%) were in 31-35years of age.

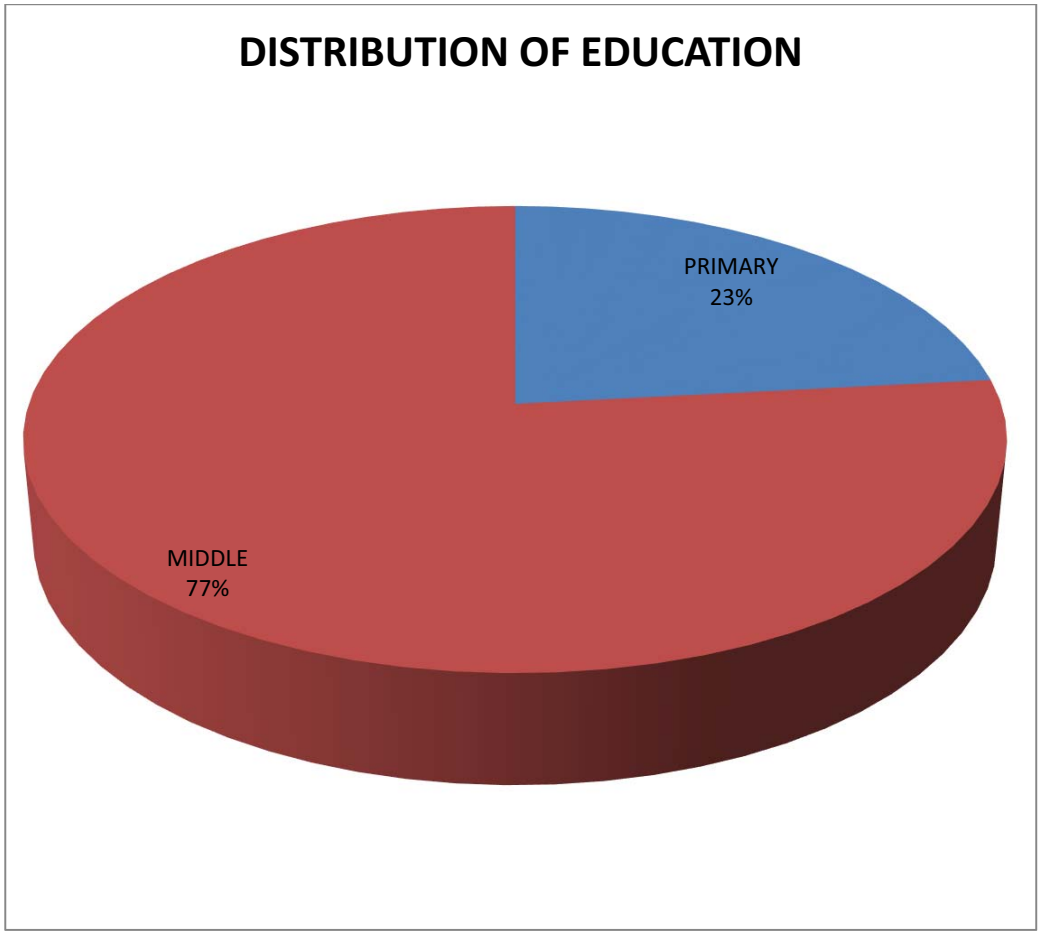


Fig. 2. Percentage Distribution of Education

The above pie diagram explains that the education, 23 (77%) were belongs to middle school education, 7 (23%) were belongs to primary school education.

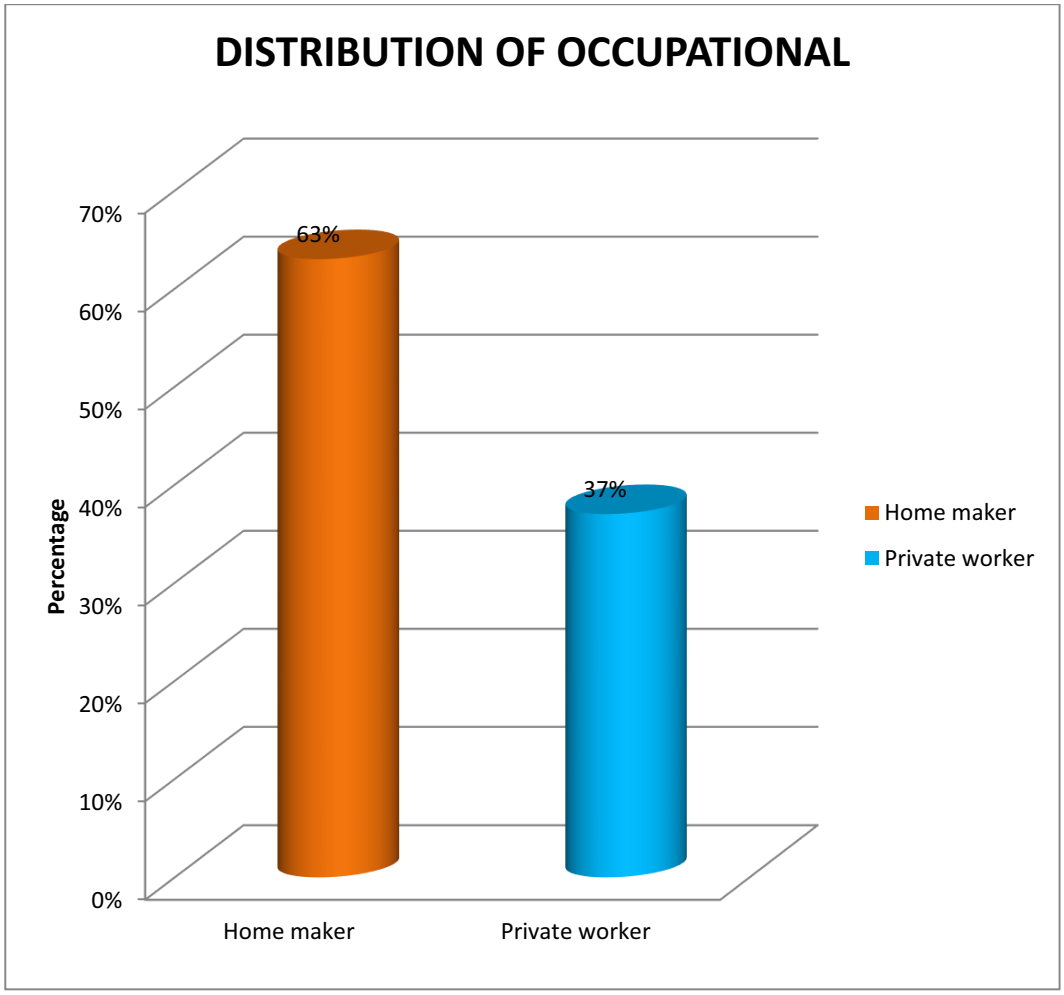


Fig. 3. Percentage Distribution of Occupation

The above cylinder diagram shows that the occupation 19 (63%) were belongs to home maker, 11 (37%) were worked in private job.

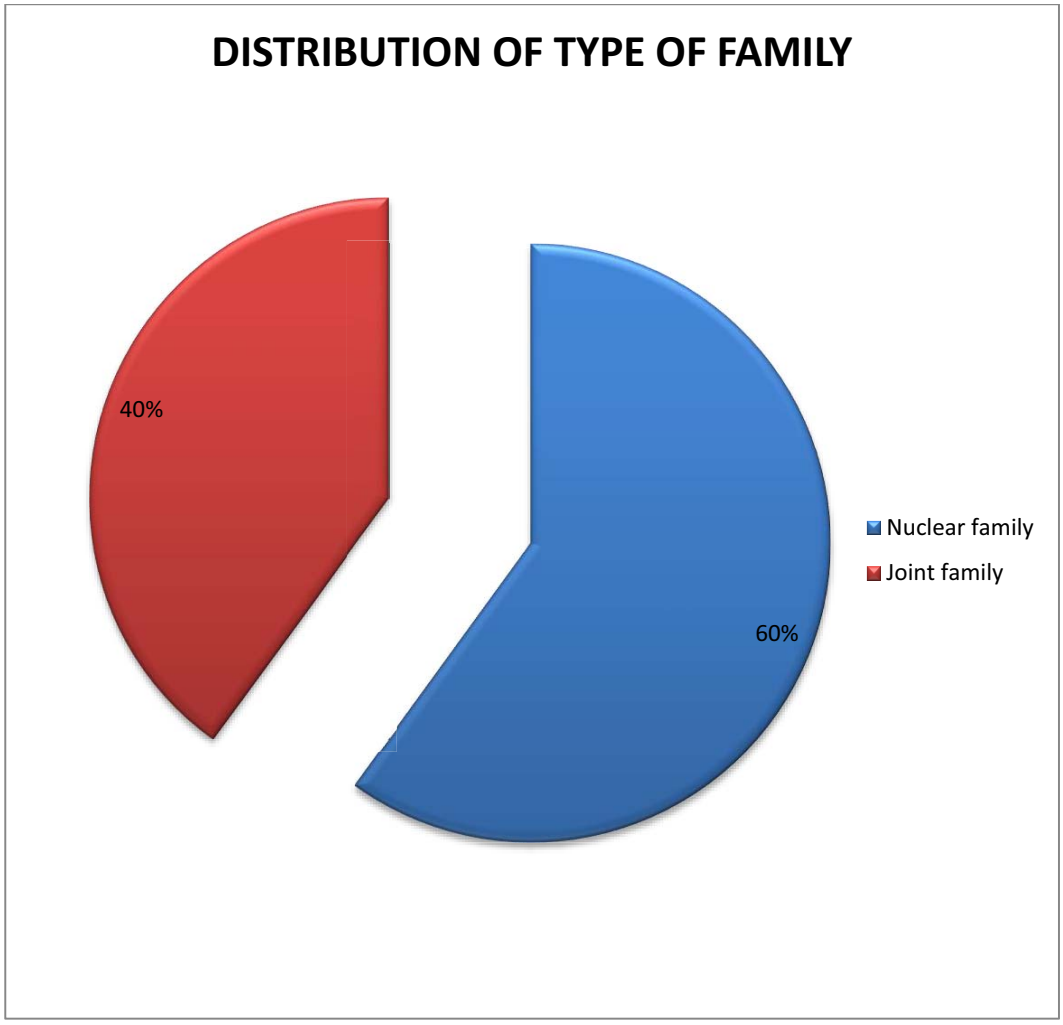


Fig. 4. Percentage Distribution of Family Type

The above pie diagram reveals that the considering family type 18 (60%) were from nuclear family, 12 (40%) were from joint family.

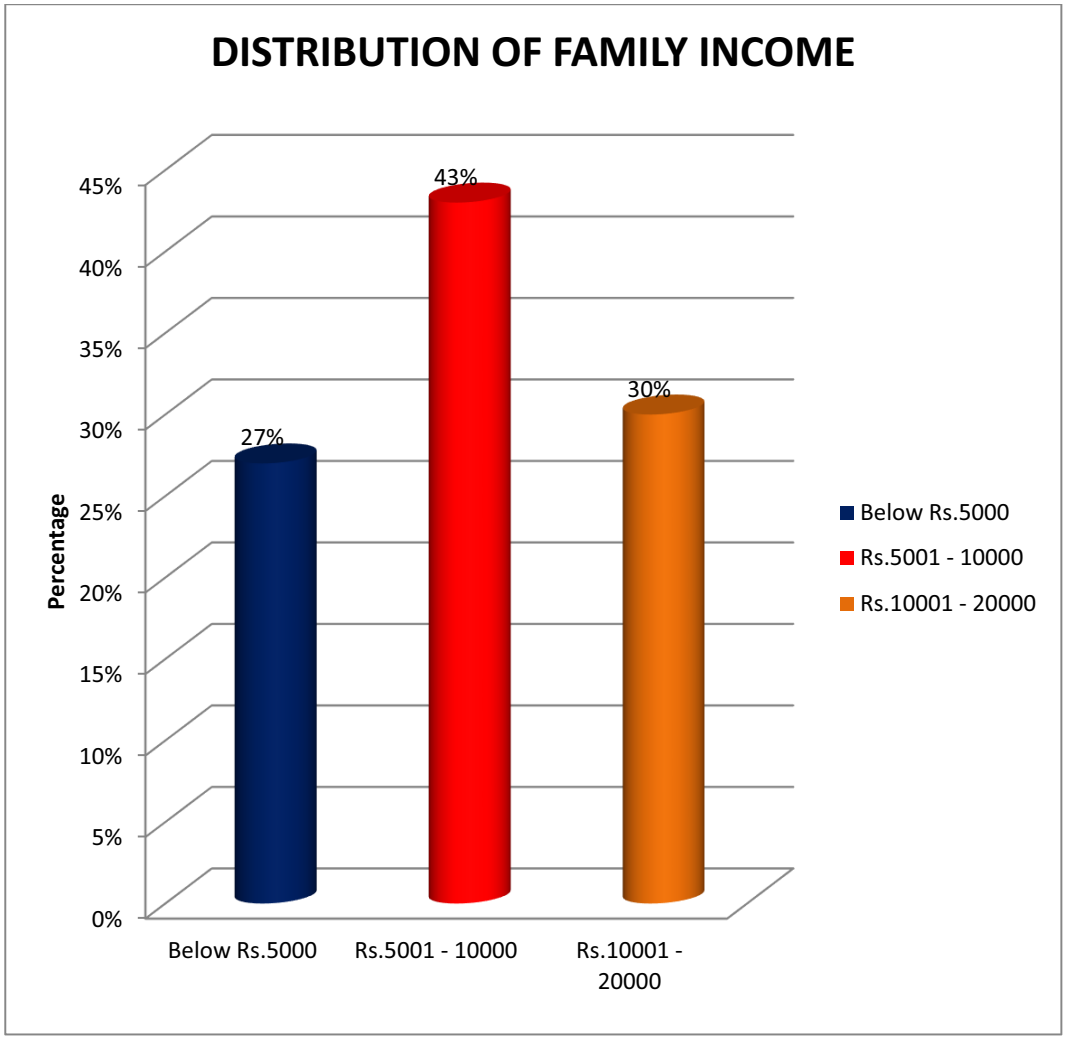


Fig. 5. Percentage Distribution of Family Income

The above bar diagram explains that family income 13 (43%) were earned between 5001 to 1000, 9 (30%) of mothers were earned between 10001 to 20000 and remaining 8 (27%) were earned below 5000.

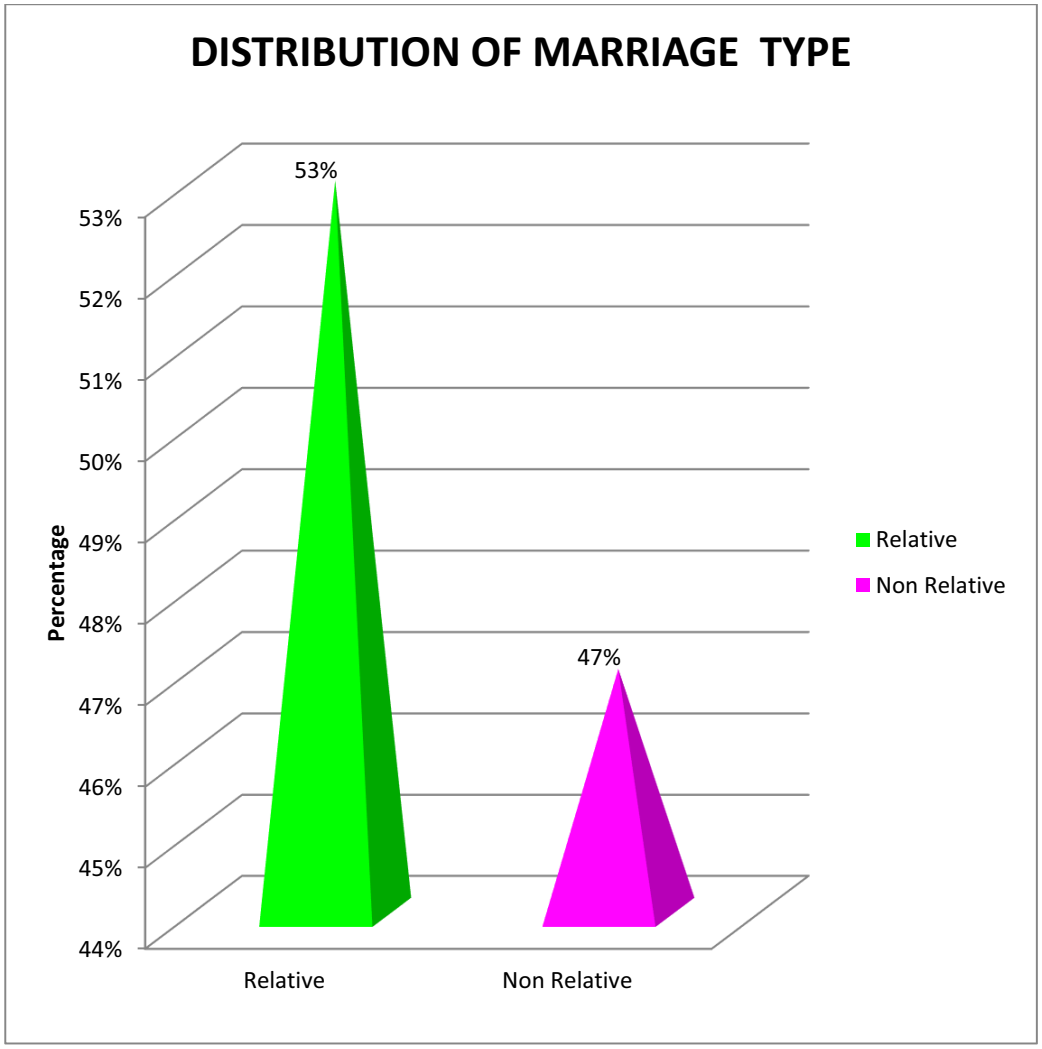


Fig. 6. Percentage Distribution of Type of Marriage

The above of cone diagram explains that 16 (53%) were belongs to relative marriage and 14 (47%) were belongs to non relative marriage.

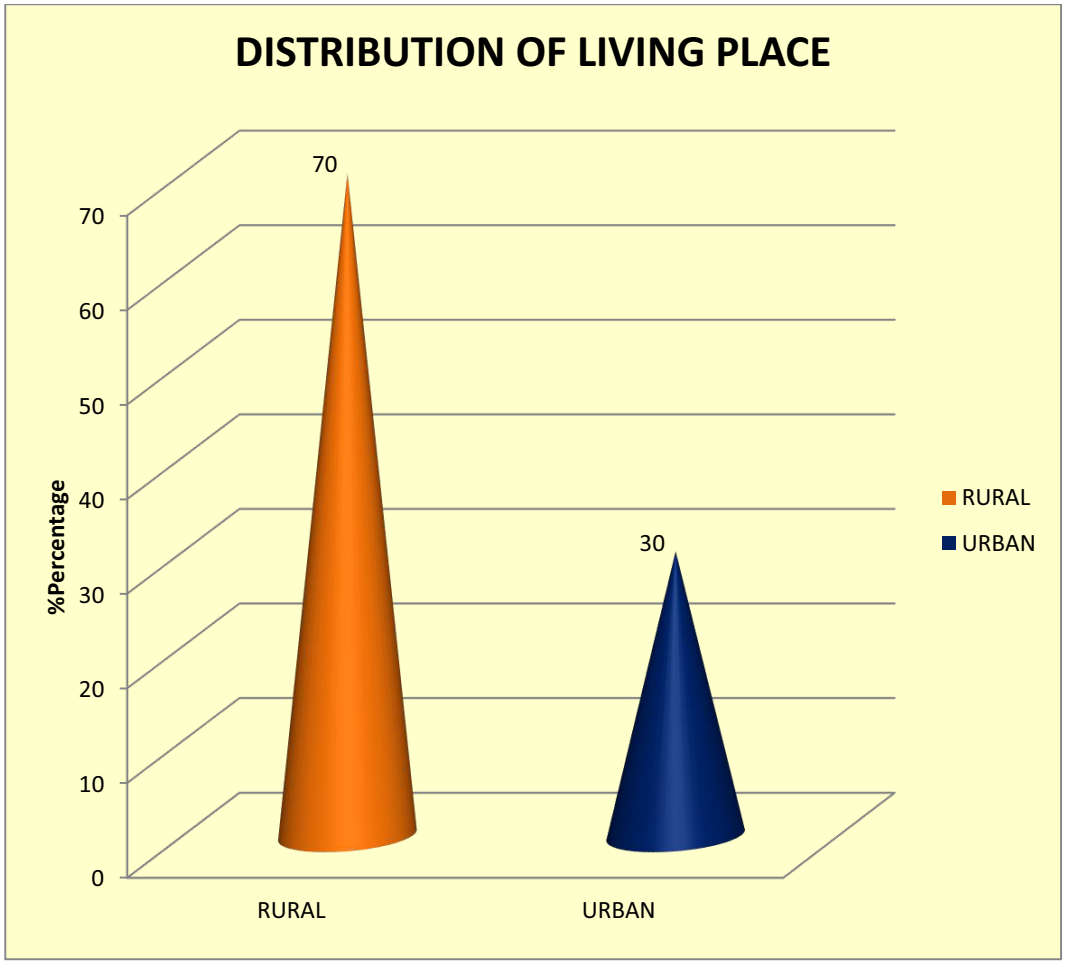


Fig. 7. Percentage Distribution of Living Place

The above cone diagram explains that living place 21 (70%) were Rural places and 9 (36%) were haired from urban places.

SECTION - II

Description the level of knowledge regarding colostomy care among care givers of colostomy children by conducting pretest.

Table- 2

Frequency and percentage distribution of pretest knowledge regarding colostomy among care givers of children with colostomy.

Level of knowledge	Pretest	
	f	%
Very low	0	0%
Low	11	37%
Average	16	53.3%
High	3	10%
Very high	0	0%

The above table shows that most of them 16(3.3%) where in average knowledge, 36.7% are low knowledge and only 3(10.0%) were high knowledge in pretest on colostomy care among care givers of colostomy children.

The about shows that mejarity of them 16(53.3) where in avearge konwlwdge 11(37%) from where in low knowledge 3(10%) of them where in high knowledge and none of the 0% where in high knowledge regarding colostomy care among care givers opf children with colostomy.

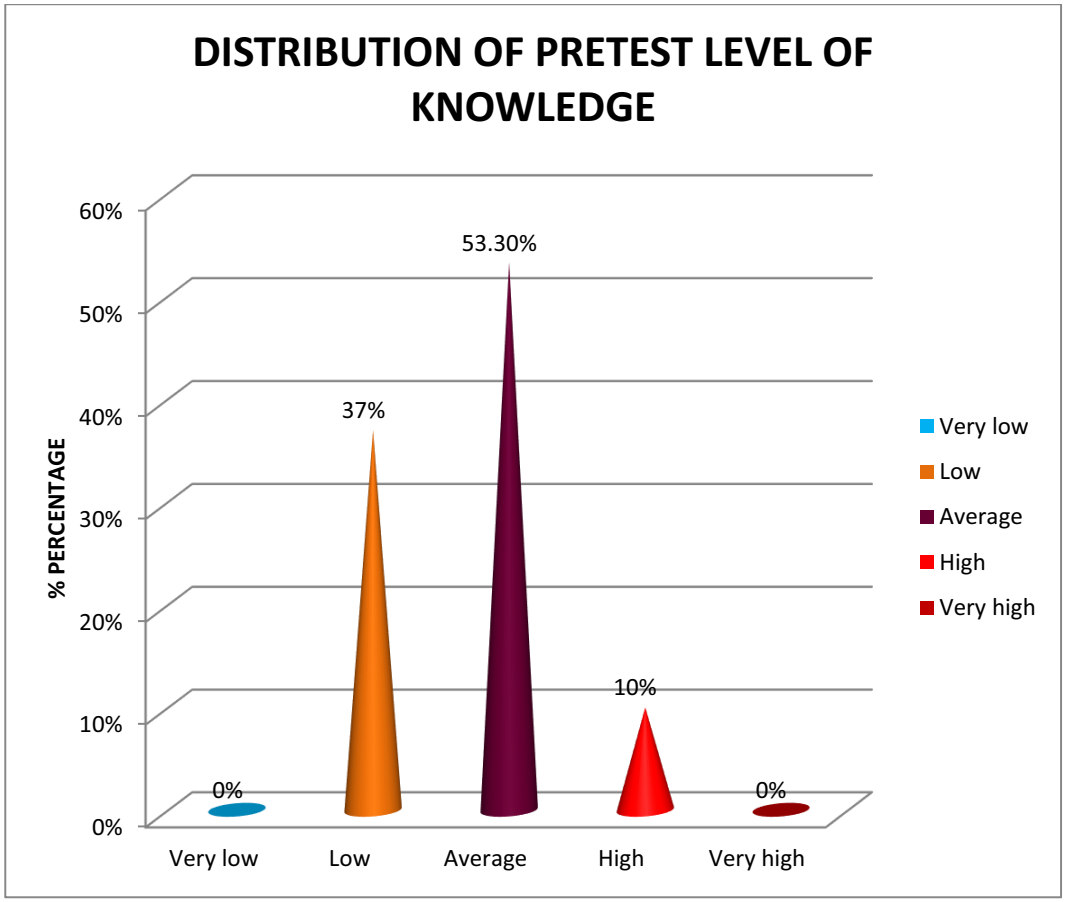


Fig. 8. Distribution of Pretest Level of Konwledge

The about shows that mejarity of them 16(53.3) where in avearge konwlwdge 11(37%) from where in low knowledge 3(10%) of them where in high knowledge and none of the 0% where in high knowledge regarding colostomy care among care givers opf children with colostomy.

Table - 3

Frequency and percentage distribution of post test level of knowledge regarding colostomy care among care givers of colostomy children.

Level of knowledge	Posttest	
	f	%
Very low	0	0%
Low	1	3.3%
Average	9	30.0%
High	17	56.7%
Very high	3	10.0%

The above table reveals that posttest result shows that 17(56.7%) where in high knowledge and 9(30.0%) where in average knowledge and 3(10.0%) where in very high knowledge and1(3.3%) where in lower level of knowledge regarding colostomy care among care givers of childen with colostomy.

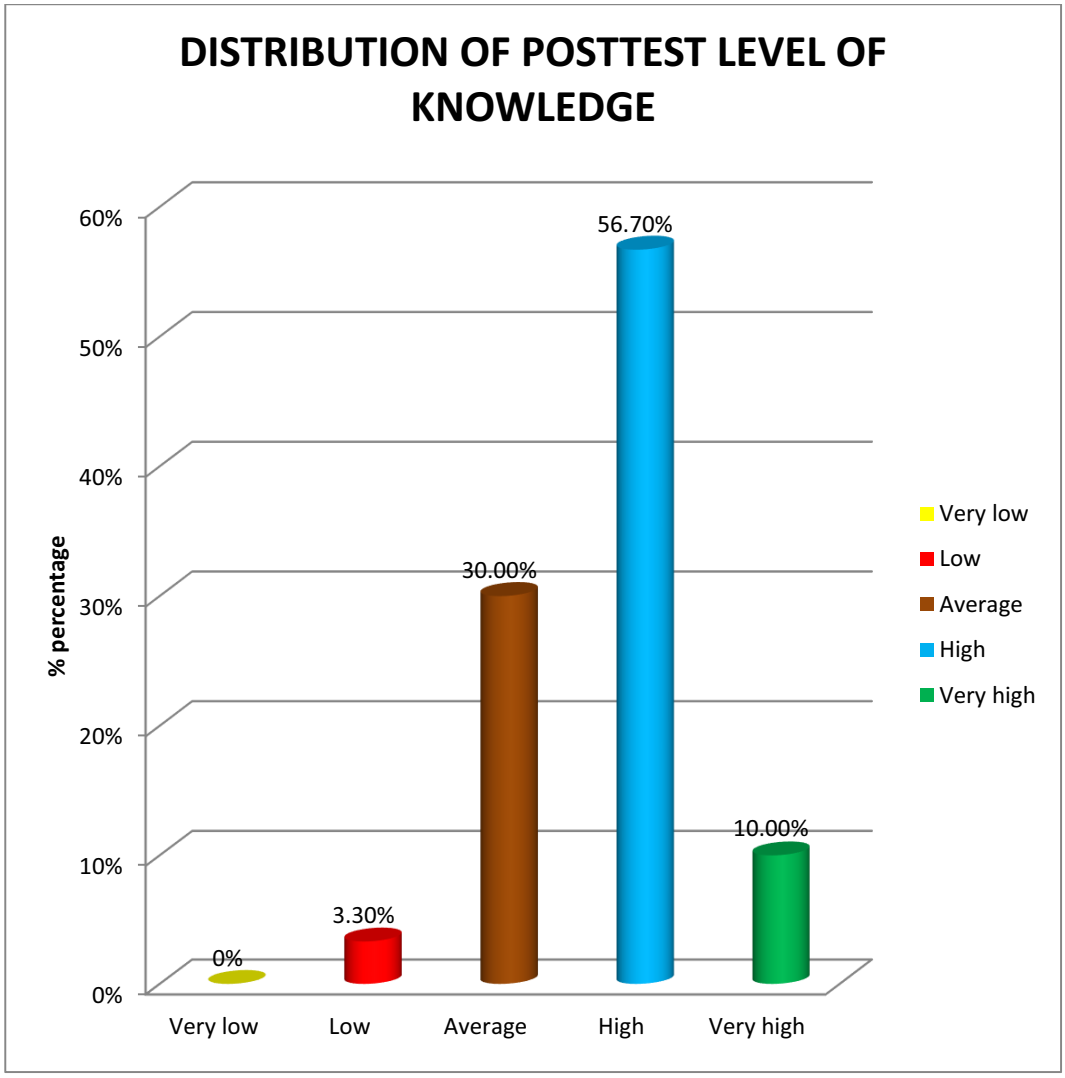


Fig. 9. Percentage Distribution of Posttest

The above cylindrical bar diagram reveals that posttest result shows that 56.7% are in high knowledge and 30.0% are in Average knowledge and 10.0% are in very high knowledge and 3.3% are in lower level of knowledge.

Table - 4

Frequency and percentage wise distribution of pre and posttest knowledge among care givers of children with colostomy

Level of knowledge	Pretest		Posttest	
	f	%	f	%
Very low	0	0%	0	0%
Low	11	37%	1	3.3%
Average	16	53.3%	9	30.0%
High	3	10%	17	56.7%
Very high	0	0%	3	10.0%

In pretest 11 (37%) were had low level knowledge, 16 (53.3%) were had average knowledge, 3 (10%) were had high level knowledge. In posttest 17 (56.7%) were had high knowledge, 9 (30.0%) were had average knowledge, 3 (10.0%) were had very high knowledge and 1 (3.3%) was low knowledge. Hence no one was scored in very low level of knowledge.

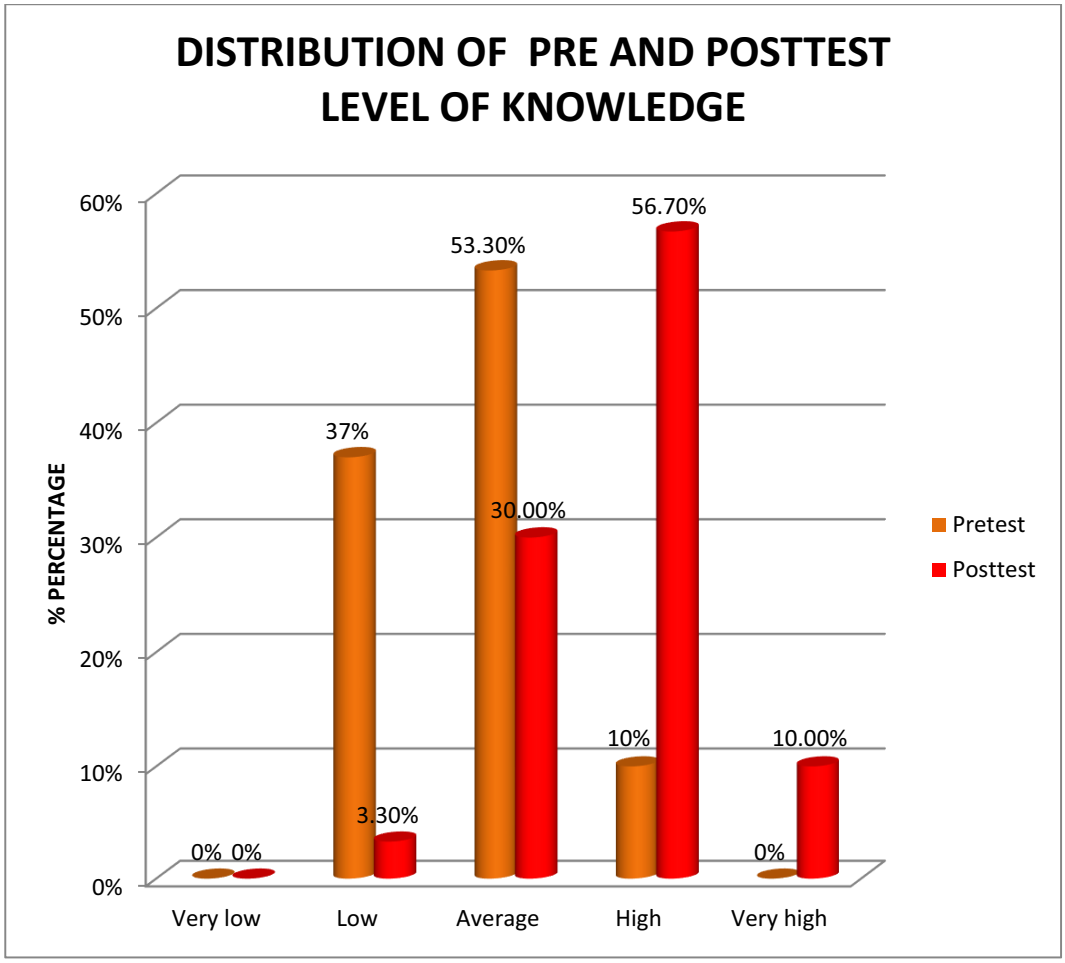


Fig. 10. Percentage Distribution of Pre and Posttest Level of Knowledge

In pretest 11 (37%) were had low level knowledge, 16 (53.3%) were had average knowledge, 3 (10%) were had high level knowledge. In posttest 17 (56.7%) were had high knowledge, 9 (30.0%) were had average knowledge, 3 (10.0%) were had very high knowledge and 1 (3.3%) was low knowledge. Hence no one was scored in very low level of knowledge.

Table - 5

Effectiveness of the instructional package on colostomy care among care givers of colostomy children by comparing mean pretest and posttest knowledge score and by using paired 't' test

Subject	Pretest		Posttest		Mean difference	't' value	'p' value
	Mean	SD	Mean	SD			
Pretest score	47.00	12.839	65.33	12.243	18.335	5.984	**p <.001* significant**

The above table shows that the level of knowledge regarding pretest and posttest mean score is 47.00 and 65.33 respectively. Standard deviation score is 12.839 and 12.243 respectively. Mean difference between the pre test and posttest is 18.33. Paired't' test value is 5.984. The calculated value is -5.984 is much higher than the table value at $p < 0.001$ level of significance. So the researcher observed that there is a highly significant increase of knowledge regarding colostomy care among care givers of children with colostomy in pediatric post operative ward at Institute of Child health and Research centre, Government Rajaji Hospital, Madurai and also instructional package is very much effective.

SECTION-IV

Association between level of knowledge with selected socio demographic variables

S.No	Socio Demographic variable	Low		Average		High		Very high		χ^2	'p' value
		f	%	f	%	f	%	f	%		
1.	Age of mother										
	a. 20 - 25	0	0%	5	17%	9	30%	0	0%	10.019	**0.124***
	b. 26 - 30	1	3.3%	4	13.3%	4	13.3%	3	10%	df=6	
	c. 31 - 35	0	0%	0	0%	4	13.3%	0	0%		
2.	Education of mother										
	a. Primary	0	0%	2	7%	4	13.33%	1	3.33%	.479	0.924
	b. Middle	1	3.33%	7	23%	13	43.33%	2	7%	df=3	
3.	Occupation										
	a. Home maker	1	3.33%	8	27%	9	30%	1	3.33%	5.0.63	**0.167***
	b. Private worker	0	0%	1	3.33%	8	27%	2	7%	df=3	
4.	Type of family										
	a. Nuclear family	1	3.33%	7	23.33%	10	33.33%	0	0%	6.362	**0.95***
	b. Joint family	0	0%	2	7%	7	23.33%	3	10%	df=3	
5.	Family income										
	a. Below Rs.5000	0	0%	5	17%	2	7%	1	3.33%	8.736	**189***
	b. 5001-10000	1	3.33%	2	7%	8	27%	2	7%	df=6	
	c. 10001-20000	0	0%	2	7%	7	23.33%	0	0%		
6.	Type of marriage										
	a. Relative	0	0%	6	20%	8	27%	2	7%	2.269	**.519***
	b. Non-relative	1	3.33%	3	10%	9	30%	1	3.33%		
7.	Place of living										
	a. Rural	0	0%	8	27%	12	40%	1	3.33%	5.786	**.123***
	b. Urban	1	3.33%	1	3.33%	5	17%	2	7%	df=3	

The above table shows that there is a significant association between the level of posttest knowledge scores and selected socio demographic variables such as age of mother , occupation, types of family, family income, type of marriage, place of living and there is no significant association between the posttest level of knowledge and other socio demographic variable Eg: education of mother.

CHAPTER – V

DISCUSSION

CHAPTER - V

DISCUSSION

Based on the objectives of the study and hypothesis, this chapter deals with detailed discussion of the results of the data interpreted from the statistical analysis. The purpose of the study was to evaluate the effectiveness of instructional package on knowledge regarding colostomy care among care givers in paediatric post operative ward at Institute of Child health and Research Centre, Madurai.

Colostomy in infancy and childhood is usually performed for benign disease and is of a temporary nature. The colostomy often may be functional for 12 to 18 months, however, and therefore requires skilled care by the care givers. The purpose of this report is to describe a combined inpatient-outpatient program of colostomy care that has resulted in improved management of infants and children with colostomies. The physician, parent, nurse, and enterostomal therapist are all intimately involved in the program. It is further intended to acquaint the paediatric physician with complicating factors related to the procedure.

Colostomies in children are frequently performed to relieve colonic obstructions resulting from congenital anomalies such as Hirschsprung's disease, colon atresia, and imperforate anus, and occasionally for pelvic and perineal tumors, Crohn's disease of the colon, and instances of rectal perforation.

Children and youth with complex medical issues, especially those with technology dependencies, experience frequent and often lengthy hospitalizations. Hospital discharges for these children can be a complicated process that requires a deliberate, multistep approach. In addition to successful discharges to home, it is essential that pediatric care providers develop and implement an interdisciplinary and coordinated plan of care that addresses the child’s ongoing health care needs.

The goal is to ensure that each child remains healthy, thrives, and obtains optimal medical home and developmental supports that promote ongoing care at home and minimize recurrent hospitalizations. This clinical report presents an approach to discharging the child with complex medical needs with technology dependencies from hospital to home and then continually addressing the needs of the child and family in the home environment.

The study was to evaluate the effectiveness of instructional package on knowledge regarding colostomy care among care givers in pediatric post operative ward at institute of child health and research centre, Government Rajaji Hospital, Madurai. The sample consists of 30 children selected by consecutive sampling technique. Pretest was conducted using a structured interview questionnaire including the socio demographic variables and knowledge questionnaire regarding colostomy care. Instructional package was distributed to the care givers of colostomy children and the doubts were cleared on the following days, if they have any doubts. The post test was administered using the same questionnaire on seventh day. The collected data were interpreted using frequency and percentage distribution, mean, standard deviation and paired‘t’ test. The results were discussed based on the objectives.

5.1 Discussion of Socio Demogrphic Variables

The above table reveals that socio demography variables among care givers of children with colostomy those who where participant in the study.

In considering the **age of the mother** 14 (46.7%) were belongs to 20-25year of age, 12 (40%) were in 26-30years and remaining 13% were in 31-35years of age.

With respect to **education** 23(77%) were belongs to middle school education, 7 (23%) were belongs to primary school education.

On the basis of **occupation 19(**63%) were belongs to home maker, 37% were worked in private job.

Considering **family type** 18 (60%) were from nuclear family, 12 (40%) were from joint family.

With the view of **family income 13 (**43%) were earned between 5001 to 1000, 9 (30%) of mothers were earned between 10001 to 20000 and remaining 8 (27%) were earned below 5000.

Based on the **place of living place** 21 (70%) were lived in Rural places and 9 (30%) were lived in urban places.

5.2 Findings Based on the Objectives

The first objective is to assess the knowledge regarding colostomy care among care givers of children with colostomy in pediatric post operative ward at Government Rajaji Hospital, Madurai.

The above table shows that most of them 16(3.3%) where in average knowledge, 36.7% are low knowledge and only 3(10.0%) were high knowledge in pretest on colostomy care among care givers of colostomy children.

A descriptive study was done in Chandigarh to develop educational aid for parents of children having colostomy and test its effectiveness. Two educational aids in the form of booklet and a video film/ computer disc (CD) were developed and used to teach care of colostomy to 120 parents. The pretest scores of mean booklet, video film, and a combination of booklet and video are (Mean=3.53, 6.05, SD=1.62, 1.24) and The post test (Mean=3.45, 5.70, SD=1.62, 1.24) and (Mean=4.18, 6.28, SD=1.18,

1.48) respectively. The result of the study was found that the developed education aid were significantly effective ($p<0.05$) in order to provide knowledge and skills to the parents.

Nabeel M. Bhzeh, D.N.Sc.; Samia.M.et.al (2012) conducted a study to Nursing care standards of colostomy are significant action to ensure quality of care. The examination of nurses' knowledge and practices regarding the nursing care standards of colostomy has not been conducted before at Assist University Hospital. The subjects were nurses working in the surgical wards of hospital. The Nurses' Knowl-edge Questionnaire and Practice checklist were administered. Data were analyzed by descriptive statistics and Pearson product-moment correlation. The findings revealed that all of nurses (100%) had knowledge about the standards regarding-colostomy at an unsatisfactory level (M±SD=29.8654± 8.34085) with the maximum mean scores (M=0.8269) and minimum mean scores (M=2.2308). All of nurses (100%) scored the actual nurses' practice of the standards at an unsatisfactory level (M±SD=111.51±25.706) with the max-imum mean scores (M=19.42) and minimum mean scores (M=2.4615). It was concluded that nurses' knowledge and practice in the nursing care standard of colostomy were unsatisfactory. It was needed to be improved through implementation of proposed nursing care standards of colostomy.

The second objective was to evaluate the effectiveness of instructional package on colostomy care among care givers of children with colostomy in pediatric post operative ward at Government Rajaji Hospital, Madurai.

In pretest 11 (37%) were had low level knowledge, 16 (53.3%) were had average knowledge, 3 (10%) were had high level knowledge. In posttest 17 (56.7%) were had high knowledge, 9 (30.0%) were had average

knowledge, 3 (10.0%) were had very high knowledge and 1 (3.3%) was low knowledge. Hence no one was scored in very low level of knowledge.

R.Kalia1 I Walia, KLN Rao.et.al (2012) conducted a study to Development of Educational Aids for the Parents of Children Having Colostomy. To develop the educational aids for parents of children having colostomy and test its effectiveness. It was found that the developed educational aids were effective in order to provide knowledge and skill to the parents ($p < 0.05$). There is a great need to develop the educational aids for parents; subsequently these can be used to teach procedures for long term home management of the children born with congenital anomalies. Improvement in the mean score in the post-evaluation was observed among the parents following the teaching intervention with all the educational aids. The difference of mean values was statistically significant ($p<.05$), indicating the efficacy of the developed educational aids**.** Educational aids assist the teacher to convey the message effectively. The educational materials developed in accordance to the specific needs of the learner, help to convey the message effectively.

Arun Kadam1, Mahadeo B Shinde.et.al (2010) conducted a study to Caregivers are those who are concerned with the client care in hospital & home. Most of the caregivers are not able to provide care to clients of colostomy with quality. Aim- was planned to assess the effectiveness of structured education on caregiver's knowledge and attitude regarding colostomy care of patient. Objectives- To assess the knowledge of care giver's regarding colostomy care of patients before and after intervention. FINDINGS- Majority 36.66 % of caregivers belonged to the age group of 31-40 years, and 66.67% were females and 33.33% with. 86.67% participated in this study were Married. The knowledge score gained by the respondents in the results shows that the mean value of knowledge in pre test was 7.43 and at post assessment

was 13.77 since the “P” value for the test is less than 0.05,.The findings showed that in pre test, attitude score the maximum, 66.67 0/0 of the samples got the score between 61-80 (positive attitude), in post test attitude score, the maximum, 70 0/0 of the samples got the score 81& above (strongly positive attitude), there was significant relationship with education and place of residence subjects and pre test Knowledge score regarding colostomy care of patient. Conclusion- structured education programme was highly effective to improve the knowledge score and to improve the attitude score of subjects/ caregiver towards colostomy care of patient.

Hence the stated Hypotheses H_1 “There is significant difference between the pretest and posttest level of knowledge regarding colostomy care among care givers children with colostomy was accepted.

The third objective was to associate the knowledge regarding colostomy care among care givers of colostomy with their selected socio demographic variables.

The study reveals that there is a significant association between the posttest knowledge scores and selected socio demographic variables such as age, occupation, types of family, family income, Type of marriage, place of living and there is no significant association between the posttest level of knowledge and other socio demographic variable education of mother.

Rupali Deshpande, M.V.P Samaj’s, (2015) conducted a study to reveals that The study was conducted in the Pediatric surgery ward of Municipal Corporation Hospital, King Edward Memorial Hospital and the Government hospital, Sir J. J. Group of Hospitals. The efficiency of the caregivers on the knowledge and practice of stoma care was analysed pre- and post-planned nursing intervention. Evaluative research approach with quasi experimental groups for pre-assessment and post-

assessment was designed for the concomitant studies. 30 caregivers of colostomy children were selected as sample population for this study by using nonprobability convenient sampling technique. Results showed that imparting colostomy childcare education to caregivers and parents showed significant performance on assessments of knowledge regarding colostomy and colostomy childcare requirement after health teaching. Thus the study results affirmed a significant difference between the pre- and postassessment knowledge and practice scores of the caregiver, thereby indicating a positive impact of the planned nursing intervention on selected components of stoma care for enhancing the efficiency of caregivers.

Hence, Hypothesis-2 There is a significant association between knowledge regarding colostomy care among care givers with their selected socio demographic variables was accepted.

CHAPTER VI

SUMMARY, CONCLUSION, IMPLICATIONS AND RECOMMENTATIONS

CHAPTER - VI

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter presents the summary of the study and conclusion drawn, clarifies the limitation of the study, the implications and the recommendations, different areas like nursing practice, nursing education, nursing administration and nursing research.

6.1 Summary of the Study

Statement of the Problem

"A study to evaluate the effectiveness of instructional package on knowledge regarding colostomy care among care givers in pediatric post operative ward at institute of child health and research centre, Government Rajaji Hospital, Madurai".

Objectives of the Study

- To assess the level of knowledge regarding colostomy care among care givers of children with colostomy in s pediatric post operative ward at Government Rajaji Hospital, Madurai.
- To evaluate the effectiveness of instructional package on colostomy care among care givers children with colostomy in pediatric post operative ward at Government Rajaji Hospital, Madurai.
- To associate the level of knowledge regarding colostomy care among care givers of children with colostomy in paediatric postoperative ward at Government Rajaji Hospital ,Madurai with their selected socio demographic variables.

Hypothesis

H_1: There is a significant difference between the pretest and posttest level thof knowledge regarding colostomy care among care givers of children with colostomy in paediatric post operative ward at Government Rajaji Hospital Madurai.

H_2: There is a significant association between the level of knowledge regarding colostomy care among care givers of children with colostomy in pediatric post operative ward with their selected socio demographic variables.

The Study Assumptions Were

1. Care givers of children with colostomy may have various level of knowledge on colostomy care.
2. Care givers of children with colostomy may provide care according to their instructional package.

The conceptual model of this study was based on Ludwig von Bertalanffy's general system theory. The study was conducted by using pre experimental design - one group pretest posttest design as used. The population of the study was the care givers of colostomy children those who are admitted in pediatric post operative ward at Institute of Child health and Research Centre at Government Rajaji Hospital, Madurai. Consecutive sampling technique was used to select the sample. The study consists of 30 care givers. A pilot study was conducted among 10 of subjects in pediatric post operative ward at Institute of Child health & Research Centre, Madurai to find out the feasibility and practicability for conducting the study. After testing the validity and reliability, the tool was used for data collection. The participants of the

pilot study were excluded from the main study. Data gathered were analyzed by using both descriptive and inferential statistics.

6.2 Major Findings of the Study

- In considering the **age of the mother** 47% were belongs to 20-25year of age, 40% were in 26-30years and remaining 13% were in 31-35years of age. Majority of the mothers were from the age group of 26-30 years.
- With respect to **education** 77% were belongs to middle school education, 23% were belongs to primary school education. Majority of the mothers for middle school education.
- On the basis of **occupation** 63% were belongs to home maker, 37% were worked in private job. Majority of the mothers were as home maker 63%.
- Considering **family type** 60% were from nuclear family, 40% were from joint family. Majority of mothers were from nuclear family 60%.
- With the view of **family income** 43% were earned between 5001 to 1000, 30% of mothers were earned between 10001 to 20000 and remaining 27% were earned below 5000. Majority of the were earned between 5001 to 10000.
- Based on the **place of living place** 70% were lived in rural places and 36% were lived in urban places. Majority of the mothers were living from rural places (70%)
- With regarding most of them 53.3% are in average knowledge, 36.7% are low knowledge and only 10.0% were high knowledge in pretest on colostomy care among care givers of colostomy children.
- In pre test 11 (37%) were low level knowledge, 16 (53.3%) were average knowledge, 3 (10%) were high level knowledge. In post test 17 (56.7%) were high knowledge, 9 (30.0%) were average knowledge, 3 (10.0%) were very high

knowledge and 1 (3.3%) were low knowledge. Hence none of the subject was scored in very low level of knowledge.

- After giving the instructional package teaching post test result shows that 56.7% are in high knowledge and 30.0% are in Average knowledge and 10.0% are in very high knowledge and 3.3% are in lower level of knowledge.
- In the aspect of level of knowledge regarding pre test and post test mean score is 47.00 and 65.33 respectively. Standard deviation score is 12.839 and 12.243 respectively. Mean difference between the pre test and post test is 18.33. Paired 't' test value is 5.984. The calculated value is -5.984 is much higher than the table value at $p < 0.001$ level of significance. So the researcher observed that there is a highly significant increase of knowledge regarding colostomy care among care givers of colostomy children in pediatric post operative ward at Institute of Child health and Research centre, Government Rajaji Hospital, Madurai and also instructional package is very much effective.

6.3 Conclusion

This study is statistically proved that instructional package increase the level of knowledge regarding colostomy care among care givers of children with colostomy. So the instructional package were cost effective non pharmacological and free from side effects.

6.4 Implications

The findings of the study have several implications on nursing practice, nursing administration, nursing education and nursing research that can be used in the following areas of profession.

Nursing Practice

- The nurses need adequate knowledge regarding colostomy care
- Nurses are the key persons of the health team, who play a major role in health promotion and maintenance. The main focus of nursing practice is to reduce the morbidity and mortality rate and to improve the quality of life
- Different methods of teaching can be used to impact knowledge
- The child health nurses can plan teaching programme like mass education on colostomy care

Nursing Education

- Nurse educations need to play emphasis on colostomy follow and care, its importance and help the care givers to take care of their children
- Creating awareness on colostomy care among care givers should be the part of curriculum of teaching students
- Nurse educators help to conduct educational programs among care givers to improve the knowledge level on colostomy care in diet pattern, hygiene, stoma care to prevent the complications
- Nursing curriculum should provide opportunity to plan, develop and administration of innovative method for health teaching in various setting along with other audio visual aids.

Nursing Research

- A nurse researcher should conduct extensive and intensive research in the area of colostomy care. So that strategies for educating care givers can be promoted. A research study can make remarkable changes in their knowledge, attitude, potentials and thereby improving the quality of nursing programme

- From this the investigator felt the need for nursing research in the areas of audio visual aids as an alternative for health education to improve knowledge of care givers of various aspects and to increase their interest in learning.

Nursing administration

- Nurse administrators are the back bone to provide facilities to improve knowledge regarding colostomy care among care givers of children with colostomy
- The nurse administrators should encourage nurse to develop of varieties of educational material
- Nurse administrator should take initiative to organize continuous education for care givers of colostomy children on knowledge regarding colostomy care
- Appropriate teaching / learning materials need to be prepared and made available care givers of colostomy children
- Training and implementation of different strategies need separate allocation of resources
- Separate budgets should be allocated for innovative educational aids.

6.5 Recommendations

Keeping in view the findings of the pre test study the following recommendations are made,

- A Similar study can be conducted on a large sample to generalize the study findings.
- A comparative study can also be done to compare the effects of instructional package teaching with other methods like video assisted teaching etc.
- A comparative study can be conducted between care givers of male and females

REFERENCES

REFERENCE

Book

1. Basavanthappa B T. Nursing research. 4th ed. Newdelhi. jaypee ; 2009
2. Basavanthappa B T. Nursing Theories. 2nd ed. NewDelhi. jaypee; 2009
3. Beharaman, Richerd K, Nelson. Text book of pediatrics. 19th ed. Philadelphia. W B Saunders; 2009
4. Dutta A K. Advances in Pediatrics. 6th ed. NewDelhi. Jaypee; 2007
5. Fawcett Jacquillne. Analysis and Evaluation of Conceptual Model of Nursing. 1st ed. Philadelphia. F A Davies; 1989
6. Ghai O P. Essentials of Pediatrics. 10th ed. New Delhi. CBS ; 2005
7. Guptha, S.P. Statistical Methods. 3rd ed. New Delhi. Sultan Chand; 1991
8. Julia. B George. Nursing Theories. 3rd ed. New Jersy. Prentice Hall company; 1996
9. Polit.,Hungler. Nursing research Principles and Methods. 8th ed. Philadelphia. J.P. Lippincott; 2009
10. Potter and Perry. Basic Skills and Procedure. 6th ed. Philadelphia. Academic publishers; 2006
11. Marlow Dorothy R , Barbara. Text book of Pediatric Nursing. 6th ed. Philadelphia. W B Saunders; 2009
12. Marilyn J Hockenberry. Essentials of Pediatric Nursing. 8th ed. St. Louis. Mosby Elsevier; 2009
13. McGrath, J.,unruth,A.M. Measurement and Assessment of Pediatric Pain. 4th ed. New York. Churchill Livingstone; 1999

14. Teery Kyle. Essentials of Pediatric Nursing. 1st ed. New Delhi. Wolterrs Kluwer India private Ltd; 2009
15. Wall.,P.D. Melzack.R. Text Book of Pain. 4th ed. New York. Churchill Livingstone; 1999
16. Whaley & Wong. Nursing Care of Infant and Children. 5th ed. Philadelphia. Mosby Elsevier; 1998

ELECTRONIC VERSION

1. http://www.pain.com
2. http://www.nursingtimes.net.com
3. **http://**www.ijtmb.org
4. http://www.massage online.com
5. http://www.google.com
6. http://www.pubmed.com
7. http://www.medscape.com
8. http://www.higewire.com
9. http://www.medline.com
10. http://www.painclinic.com

JOURNAL REFERENCES

1. Arun Kadam, Mahadeo B. Shinde. (2014). Effectiveness of Structured Education on Caregiver's Knowledge and Attitude Regarding Colostomy Care. *International Journal of Science and Research.* 122-136.
2. Alice King, Judith J. Stellar, Anne Blevins, and Kara Noelle Shah. (2014). Dressings and Products in Pediatric Wound Care. *Advances in Wound Care.* 324–334.
3. Baernholdt, M., Drake, E., Maron, F., & Neymark, K. (2013). Fostering internationalization: An American–Danish semester-long undergraduate nursing student exchange program. *International Nursing Review*, 60(2), 221-227.
4. Alessandro Calisti, Kibreab Belay, Guglielmo Mazzoni, Guido Fiocca, Giusep pe Retrosi,Claudio Olivieri. (2011). Promoting Major Pediatric Surgical Care in a Low-Income Country: A 4-Year Experience in Eritrea. *World Journal of Surgery.* 760-766.
5. Christine A. Schindler, RN, MSN, CPNP-AC, Theresa A. Mikhailov, MD, Evelyn M. Kuhn, PhD, Jean Christopher.et.al., (2011). Protecting Fragile Skin: Nursing Interventions to Decrease Development of Pressure Ulcers in Pediatric Intensive Care. *American Journal of Critical Care.* 26-35.
6. Elizabeth A Worthey, Alan N Mayer, Grant D Syverson. (2011). Making a definitive diagnosis:Successful clinical application of whole exome sequencing in a child with intractable inflammatory bowel disease. *Official Journal of the American College Medical Genetics and Genotics.* 255- 262.
7. Diane E. Cooney, Jay L. Grosfeld. (2007). Care of the Child With a Colostomy. *American Academy of Pediatrics.*

8. Keith E Georgeson, Michael M Fuenfer, William D Hardin. (2005). Primary laparoscopic pull-through for Hirschsprung's disease in infants and children. *Journal of Pediatric Surgery.* 1017–1022.
9. McCord, Shannon; McElvain, Virginia; Sachdeva, Ramesh; Schwartz, Pat; Jefferson, Larry S. Section Editor(s): Doughty, Dorothy MN, RN, FNP, CWOCN, FAAN. (2004). Risk Factors Associated With Pressure Ulcers in the Pediatric Intensive Care Unit. *Journal of Wound, Ostomy & Continence Nursing.* 155-244.
10. Groeneveld, Audrey; Anderson, Marjorie; Allen, Sandy; Bressmer, Sandy; Golberg, Maria; Magee, Bernice; Milner, Margaret; Young, Sue. (2004). The Prevalence of Pressure Ulcers in a Tertiary Care Pediatric and Adult Hospital. *Journal of Wound, Ostomy & Continence Nursing:* 108–120.
11. Sabine Irtan, Marc Bellaïche, Christopher Brasher, Alaa El Ghoneimi, Jean Paul Cézard, Arnaud Bonnard. (2003). Stomal prolapse in children with chronic intestinal pseudoobstruction: a frequent complication. *Journal of Pediatric Surgery.*
12. Henry B. So, David L. Schwartz, Jerrold M. Becker, Fredric Daum, Keith M. Schneider (2003). Endorectal “pull-through” without preliminary colostomy in neonates with Hirschsprung's disease. *Journal of Pediatric Surgery.* 470–471.
13. Michael W.L. Gauderer. (2001). Percutaneous endoscopic gastrostomy—20 Years later: A historical perspective. *Journal of Pediatric Surgery.* 217–219
14. B. Chandramouli , K. Srinivasan, S. Jagdish, N. Ananthakrishnan. (2004). Morbidity and mortality of colostomy and its closure in children. *Journal of Pediatric Surgery.* 596–599.

15. Shaul DB, Harrison EA. (1997). Classification of anorectal malformations--initial approach, diagnostic tests, and colostomy. *Department of Surgery, Children's Hospital Los Angeles, CA.* 187-195.

APPENDICES

APPENDIX-I

From

Mrs.Dhanalakshmichinnathambi,

I year M.sc(N),

College of Nursing,

Madurai Medical College,

Madurai.

To

The Head of the Department,

Department of Pediatric Surgery,

Institute of Child Health and Research centre,

Madurai.

Through the proper channel

Respected Sir,

Sub: Requesting permission to conduct a study in Pediatric surgical ward – regarding

As per the curriculum recommended by the INC and the TamilnaduDr.MGR Medical University,all the M.sc (Nursing) students has to conduct a study for the partial fulfilment of the course.

I have selected a study "A study to evaluate the effectiveness of instructional package on knowledge regarding colostomy care among care givers in pediatricpost operative ward at Institute of Child Health and Research centre,GRH Madurai." So, I kindly request you to consider,guide and allow me to conduct the study in your esteemed department.

Thanking You,

Madurai-20

.12.2014

Yours Sincerely,

Dhanalakshmichinnathambi

Forwarded
S.P
15/12/14
Principal
COLLEGE OF NURSING
Medical College
Madurai-20.

PERMITED TO DO THE STUDY AFTER GETTING PERMISSION FROM DEAN

16/12/14
Professor And HOD
Dept. of Paediatric Surgery
GOVT. MADURAI MEDICAL COLLEGE
AND RAJAJI HOSPITAL
Madurai-625020

APPENDIX –IX

College of Nursing,

Madurai Medical College,

Madurai.

LESSON PLAN ON COLOSTOMY

SUBMITTED BY

Mrs.DHANALAKSHMI CHINNATHAMBI

II YEAR M.Sc (N)

CON, MMC, MADURAI.

INTRODUCTION

An Ostomy can be defined as any surgical procedure resulting in the external diversion of aces and urine through a stoma. The most common ostomies one a colostomy and ileostomy for diseases of the fecal stream, and colostomy for diversion of the urinary stream. Persons living with ostomies requite specialized and management to sustain physical health and quality of life. The provision of specialized ostomy care begins preoperatively and continues throughout the postoperative and rehabilitative period and throughout the patient's life time with an ostomy.

CENTRAL OBJECTIES

The care givers will gain adequate knowledge about colostomy, management, types of colostomies, pouching system and complications will improves the skill in the procedure and develop positive attitude towards performing it and will be able to perform to do their activities.

CONTRIBUTORY OBJECTIVES

At the end of the

1. define the term colostomy
2. write the purpose of colostomy
3. list out the types of colostomies
4. describe the management of colostomy
5. explain the pouching system of colostomy
6. mention the complications of colostomy

S.No	Time	Contributory objectives	Content	Teachers activity	Learners activity	AV Aids	Evaluation
1.	5mins	Define the term of colostomy	**Definition:** Colostomy is a surgical opening in the abdomen in which the colon is brought to the skin surface. A colostomy is an opening in the belly that is made during surgery. The end of the colon is brought through this opening to form a stoma.	Explaining	Listening	Flash cards and booklets	
2.	5mins	Write the purpose of colostomy	**Purpose of Colostomy** Colostomy surgery is done for many different diseases and conditions certain lower bowel problems are treated by giving part of the bowel a rest. To do this, a short term colostomy a created. So that the bowel can heal. This may take a few weeks,	Explaining	Listening	Flash cards and booklets	

S.No	Time	Contributory objectives	Content	Teachers activity	Learners activity	AV Aids	Evaluation
			months or even years. When part of the colon of the rectum becomes diseased a long term colostomy must be made. The diseased part of the bowel is removed or permanently rested. In this care, the colostomy is not exported to be closed in the future.				
3.	5mins	List out the types of colostomies	**Types of Colostomies** A Colostomy can be short term temporary, or lifelong permanent and can be done in any part of the colon. **Transverse Colostomies:** The transverse colostomy is in the upper abdomen, either in the middle or toward the night side of the	Explaining	Listening	Flash cards and booklets	

S.No	Time	Contributory objectives	Content	Teachers activity	Learners activity	AV Aids	Evaluation
			body. This type of colostomy allows the stool to leave the body before it reaches the descending colon. Some of the following colon problems can lead to transverse colostomy. **1. Diverculitis** This is inflammation of diverticula. It can cause abscess, scanning with structure or rupture of the colon and infection in severe cases. **2. Inflammatory bowel diseases** **3. Cancer** **4. Injury** **5. Birth defects**				

S.No	Time	Contributory objectives	Content	Teachers activity	Learners activity	AV Aids	Evaluation
			Types of transverse colostomies: Two types of transverse colostomies 1. Loop transverse colostomy 2. Double barrel transverse colostomy **Loop transverse colostomy** The loop colostomy may look like one way large stoma but it has 2 openings. One opening puts out tool, the other only puts out mucus. The colon normally makes small amounts of mucus to protect itself from the bowel contents. This mucus passes with the bowel movements and is usually not notices. Despite the colostomy, the part of the colon keeps				

S.No	Time	Contributory objectives	Content	Teachers activity	Learners activity	AV Aids	Evaluation
			making mucus that will come out either through the stoma or through the rectum and anus. This is normal expected. **Double bowel transverse colostomy** When creating a double bowel colostomy, the surgical devices the bowel completely. Each opening is brought to the surface as a separate stoma. The 2 stomas may or may not be separated by skin. The 2 stomas may or may not be separated by the skin. Here, too, one opening puts out stool and other puts out only mucous. Sometimes the end of the inactive part of the bowel is soon closed and left				

S.No	Time	Contributory objectives	Content	Teachers activity	Learners activity	AV Aids	Evaluation
			inside the belly. Then there is only one stoma. The mucus from the resting portion of the bowel comes out through the rectum. **Ascending colostomy** The ascending colostomy is placed on the right side of the belly. Only a short portion of colon remains outline. This means that the output is liquid and it contains many digestive enzymes. A drainable pouch must be worn at all times, and he skin must be protected from the output. Descending and sigmoid colostomies Located in the descending colon, the descending colostomy is				

S.No	Time	Contributory objectives	Content	Teachers activity	Learners activity	AV Aids	Evaluation
			placed on the lower le side of the belly. A Sigmoid colostomy is made in the sigmoid colon, and located just a few inches lower than a descending colostomy.				
4.	10mins	Describe the management of colostomy	**Management of Colostomy** Care of any colostomy is really not very hand to do, but getting to the point where we feel comfortable takes a lot of learning, a lot of practice, the right supplies, and a positive attitude. **Bowel Movements with a transverse colostomy:** A transverse colostomy will put out stool no matter, we have to keep in mind there points.	Explaining	Listening	Flash cards and booklets	

S.No	Time	Contributory objectives	Content	Teachers activity	Learners activity	AV Aids	Evaluation
			1. A pouching system that will keep you from sitting your clothing is the right one for you. 2. The firmness of your stool is affected by what you eat and divide 3. Gas and odor are part of the digestive process and cannot be prevented. 4. Empty the pouch often during the day to keep it from leaking or bulging under your clothes. 5. Changing the pouching system before there is a leak. It is best to change it no more than once a day not less than once every 3 or 4 days.				

S.No	Time	Contributory objectives	Content	Teachers activity	Learners activity	AV Aids	Evaluation
			6. The ostomy output can irritable your skin. You can prevent skin problems by having a correctly fitted pouch system and by using special materials for ostomy care. **Bowel movements with a descending or sigmoid colostomy** Treat the bowel movement through a colostomy like a normal movement through the anus. The colostomy does not have a sphincter muscle that can stop the package of stool. So we must wear a pouch to collect anything come through the colostomy. There are many light weight pouches you can by that are hand to see under clothes.				

S.No	Time	Contributory objectives	Content	Teachers activity	Learners activity	AV Aids	Evaluation
5.	10mins	Explain the pouching system of colostomy	**Pouching system of colostomy** A good pouching system should be, 1. Secure with a good leak proof real that lasts for up to 3 days. 2. Odor resistant 3. Protective of the sub around the stoma 4. Nearly invisible when covered with clothing 5. Easy to put on and take off **Types of Pouching system** They collect stool drainage that comes out of the stoma. Pouches are made from odor resistant materials and vary in cost.	Explaining	Listening	Flash cards and booklets	

S.No	Time	Contributory objectives	Content	Teachers activity	Learners activity	AV Aids	Evaluation
			There are 2 main types of systems available 1. One piece pouches are attached to the skin barrier 2. Two piece systems are made up o a skin barrier and a pouch that can be taken of and put back on the barrier.				
6.	10mins	Mention the complications of colostomy	**COMPLICATIONS** 1. Mucocutaneous separation 2. Stomal ischemia 3. Stomal stricture 4. Stomal prolapse 5. Peristomal hernia	Explaining	Listening	Flash cards and booklets	

APPENDIX – X

மாணவ ஆசிரியரின் பெயர்	:	தனலெட்சுமி சின்னதம்பி
பாடப்பிரிவின் பெயர்	:	குழந்தைகள் நல செவிலியம்
பிரிவு	:	இரண்டாம் ஆண்டு முதுநிலை செவிலிய பட்டப்படிப்பு மாணவி
பாடத்தின் பெயர்	:	பெருங்குடல் திறப்பு அறுவை சிகிச்சை குழந்தைகளை பராமரித்தல்
பாடம் கவனிப்பவர்	:	பெருங்குடல் திறப்பு அறுவை சிகிச்சை செய்த குழந்தைகளை பராமரிப்பவர்கள்
பங்கு பெறுவோர்		
பயனாளிகளின் எண்ணிக்கை	:	60
இடம்	:	அரசு இராஜாஜி மருத்துவமனை வளாகம்
முந்தைய கல்வியறிவு	:	தாய்மார்களுக்கு அடிப்படை அறிவு இருத்தல். ஆனால் பெருங்குடல் திறப்பினை பராமரிப்பது தெரியாதிருத்தல்
கல்வி போதிக்கும் முறை	:	பாடம் நடத்துதலும், கலந்துரையாடுதலும்
கல்வி போதிக்கும் மொழி	:	தமிழ்
கல்வி போதிக்கும் நேரம்	:	30நிமிடம்
கல்வி போதிக்கும் உபயோகிக்கும் ஒலி மற்றும் ஒளி உபகரணங்கள்	:	பாட விளக்கக் கையேடு

பொது நோக்கம்

பெருங்குடல் திறப்பு குழந்தைகளின் தாய்மார்கள் இந்த கல்வி போதித்தலுக்கு பிறகு பெருங்குடல் திறப்பு பராமரிப்பு முறைகள் பற்றி நிறைய கல்வியறிவு

பாடம் நடத்திய பிறகு தாய்மார்கள்

1. பெருங்குடல் திறப்பு என்றால் என்ன?
2. பெருங்குடல் திறப்பு செய்வதற்கான காரணங்கள் எடுத்துரைத்தல்
3. பெருங்குடல் திறப்பு செய்வதற்கான நோக்கத்தை குறிப்பிடல்
4. பெருங்குடல் திறப்பு அறுவை சிகிச்சையின் வகைகளை குறிப்பிடல்
5. பெருங்குடல் திறப்பு "துளை"யை பராமரித்தல்
6. பெருங்குடல் திறப்பு அறுவை சிகிச்சைக்கு பிறகு கையாள வேண்டிய உணவு பழக்கவழக்கங்கள் பற்றி எடுத்துரைத்தல்
7. பெருங்குடல் திறப்பு அறுவைக்குப் பின் வழக்கமான வாழ்நாள் நடைமுறைக்கு திரும்புதல்
8. மருத்துவமனையிலிருந்து விடுவிக்கப்பட்டவுடன் சரியான கால இடைவெளியில் மருத்துவரை அணுகுதல்

வ.எண்	நேரம்	நோக்கம்	பாடக்குறிப்பு	ஆசிரியரின் செயல்பாடு	பங்கு பெறுபவரின் செயல்பாடு
1.		பெருங்குடல் திறப்பு என்றால் என்ன	அறுவை சிகிச்சை மூலமாக பெருங்குடலை வயிற்றின் மேற்பரப்பிற்கு கொண்டு வந்து சிறிய "துளை" மூலமாக மலத்தை வெளியேற்றும் முறையாகும்.		
2.		பெருங்குடல் திறப்பு செய்வதற்கான காரணங்கள் எடுத்துரைத்தல்	பெருங்குடலில் திறப்பு அறுவை சிகிச்சை செய்வதற்கான காரணங்கள்:- பெருங்குடலில் ஏற்படும் நோயின் தன்மையினை பொருத்து, பிறவியிலேயே ஆசனவாய் உருவாகாமல் இருக்கும் குழந்தைகளுக்கு, உயிர் காக்கும் பொருட்டு இந்த அறுவை சிகிச்சை செய்யப்படுகிறது.		
3.		பெருங்குடல் திறப்பு அறுவை சிகிச்சை செய்வதற்கான நோக்கத்தை குறிப்பிடல்	**பெருங்குடல் அறுவை சிகிச்சை செய்வதன் நோக்கம்** நோயின் தன்மையினை பொறுத்து இந்த சிகிச்சை நிரந்தரமாகவோ, தற்காலிகமாகவோ செய்யப்படுகிறது.		

வ.எண்	நேரம்	நோக்கம்	பாடக்குறிப்பு	ஆசிரியரின் செயல்பாடு	பங்கு பெறுபவரின் செயல்பாடு
4.		பெருங்குடல் திறப்பு அறுவை சிகிச்சையின் வகைகளை குறிப்பிடல்	**பெருங்குடல் திறப்பு அறுவை சிகிச்சையின் வகைகள்:-** நோய் இருக்கும் இடத்தை பொருத்து பெருங்குடலில் செய்யப்படும் அறுவை சிகிச்சைகள் வகைப்படுத்தப்படுகின்றன. அவை, 1. ஏறுகுடலில் செய்யப்படும் அறுவை 2. படுக்கை வசமுள்ள குடலில் செய்யப்படும் அறுவை சிகிச்சை 3. இறங்கு குடலில் செய்யப்படும் அறுவை சிகிச்சை		
5.		பெருங்குடல் திறப்பு துளையை பராமரித்தல்	**பெருங்குடல் திறப்பு துளை** பெருங்குடல் திறப்பு துளை என்பது அறுவை சிகிச்சை மூலம் வயிற்றின் மேற்பரப்பிற்கு கொண்டு வரப்பட்ட பெருங்குடலின் முனை பகுதியை துளை என்று சொல்லுகிறோம்.		

வ.எண்	நேரம்	நோக்கம்	பாடக்குறிப்பு	ஆசிரியரின் செயல்பாடு	பங்கு பெறுபவரின் செயல்பாடு
			சாதாரணமாக காணப்படும் துளை:- சாதாரணமாக இந்தத் துளையானது இளஞ்சிவப்பு நிறத்துடன், கதகதப்பாக சிறிது திரவம் சுரந்த நிலையில் இருக்கும். இதனை "துளை" என்று அழைக்கிறோம். இந்த துளையானது அறுவை சிகிச்சைக்கு பிறகு 6 முதல் 8 வாரங்களில் சுருங்கும். இந்த துளையை நாம் அவ்வப்போது கவனிக்க வேண்டும். துளையின் நிறததில் ஏதேனும் மாற்றம் ஏற்படுகிறதா என்று கவனிக்க வேண்டும். **பெருங்குடல் திறப்பு துளையில் பொருத்தப்படும் பைகள்:-** பைகள் என்பது துளையில் மலம் சேகரிக்க பொருத்தப்படும் பைகள் ஆகும். இந்தப் பைகள் தண்ணீர் ஊடுறுவாத, வாடை வெளியேற்றாத வகையில் செய்யப்பட்டள்ள ஒரு பொருள். இந்த		

வ.எண்	நேரம்	நோக்கம்	பாடக்குறிப்பு	ஆசிரியரின் செயல்பாடு	பங்கு பெறுபவரின் செயல்பாடு
			பைகள் துளைக்கு பொருத்தமானதாக இருக்க வேண்டும். பையின் வாய் பகுதியானது திறப்பு துளைக்கு மேல் பெரியதாகவோ, சிறியதாகவோ இருக்கக்கூடாது. **பைகள் மாற்றும் முறை:-** ☞ மருத்துவர் அறிவுரைப்படி பைகளை வாங்கி உபயோகப்படுத்த வேண்டும். ☞ மலம் வெளியேறும் பைகளை மாற்றும் முன் கைகளை சுத்தமாக கழுவ வேண்டும். ☞ மலம் வெளியேற உபயோகிக்கும் பைகள் சரியான அளவில் இருக்க வேண்டும். அதாவது மலம் வெளியேறும் துளையின் அளவிற்கு ஏற்ப பைகளின் அளவு இருக்க வேண்டும். "பையின்" தோலின் மேல் ஒட்டும் பகுதியானது மலத்துளையினை சரியாக		

வ.எண்	நேரம்	நோக்கம்	பாடக்குறிப்பு	ஆசிரியரின் செயல்பாடு	பங்கு பெறுபவரின் செயல்பாடு
			மூடியிருக்குமாறு பொருத்த வேண்டும். ☞ பைகளை தோலின் மேல் ஒட்டும் போது தோலில் ஏதேனும் அரிப்பு மற்றும் ஒவ்வாமை ஏற்படுகிறதா என்று கவனிக்க வேண்டும். ☞ மலம் நிறைந்த பின் உடனே அதனை மாற்றிவிட வேண்டும். பைகளில் 1:3 அல்லது 1:2 பகுதி நிறைந்தவுடன் பைகளை மாற்றிவிட வேண்டும். ☞ பைகளை சரியான நேரத்தில் முறைப்படி அகற்ற வேண்டும். அதிகம் நிறைந்தவுடன் கசிந்து வெளியே பரவும். இதனால் தோல்பகுதி அரிக்கப்படும். இதனை தடுக்க அடிக்கடி பையை மாற்ற வேண்டும். ☞ மலத்துளையினை சுற்றி தோலில் அரிப்பு ஏற்பட்டால் உடனே பையினை மாற்ற		

வ.எண்	நேரம்	நோக்கம்	பாடக்குறிப்பு	ஆசிரியரின் செயல்பாடு	பங்கு பெறுபவரின் செயல்பாடு
			வேண்டும். மலத்துளையினை சுற்றியுள்ள தோல் பகுதியினை சுத்தமான தண்ணீர் கொண்டு கழுவ வேண்டும். மென்மையான அமிலத்தன்மையில்லாத சோப்பு கொண்டு சுத்தமான தண்ணீர் கொண்டு கழுவ வேண்டும். **பெருங்குடல் திறப்பு துளையில் கவனிக்க வேண்டியவை:** "பெருங்குடல் திறப்பு" அறுவை சிகிச்சைக்குப் பின் அப்பகுதியை சுற்றிலும் கவனிக்க வேண்டும். "துளையின்" மூலம் மலம் வெளியேறுவதால் மலத்தின் அமில்த்தன்மையினால் சுற்றியுள்ள தோல் பகுதியில் அரிப்பு ஏற்பட வாய்ப்புள்ளது. அதனை தடுக்க மருத்துவர் அறிவுறுத்தும் மருந்தினை உபயோகிக்க வேண்டும்.		

வ.எண்	நேரம்	நோக்கம்	பாடக்குறிப்பு	ஆசிரியரின் செயல்பாடு	பங்கு பெறுபவரின் செயல்பாடு
6.		பெருங்குடல் திறப்பு அறுவை சிகிச்சைக்கு பிறகு கையாள வேண்டிய உணவு பழக்க வழக்கங்கள் பற்றி எடுத்துரைத்தல்	**அறுவை சிகிச்சைக்குப்பின் கையாள வேண்டிய உணவு பழக்கவழக்கங்கள்:-** ஒரு வயதிற்கு உட்பட்ட குழநதைக்கு அறுவை சிகிச்சைக்குபின் ஒன்பது மாதங்கள் வரை தாய்ப்பால் மட்டுமே கொடுக்க வேண்டம். உணவில் நிறைய தண்ணீர் சேர்த்துக் கொள்ள வேண்டும். நார்ச்சத்து நிறைந்த கீரை, காய்கறிகள் இவற்றை குறைவாக எடுத்துக் கொள்ள வேண்டும். ஏனெனில் நார்ச்சத்து பொருட்கள் குடலின் அசைவினை அதிகரிக்கும். **தவிர்க்க வேண்டிய உணவு வகைகள்:-** ☞ முட்டை, முட்டைக்கோஸ், வெங்காயம், பூண்டு, பீன்ஸ், பால், வெண்ணெய் கொடுத்தால் இவை அதிகப்படியான "வாயுவினை" உண்டாக்கும்.		

வ.எண்	நேரம்	நோக்கம்	பாடக்குறிப்பு	ஆசிரியரின் செயல்பாடு	பங்கு பெறுபவரின் செயல்பாடு
			☞ வாயு உருவாக்குவதுடன் அது "துர்நாற்றத்துடன்" இருக்கும். எனவே இதனை தவிர்க்க வேண்டும். ☞ சரியான நேரத்தில் உணவினை எடுத்துக் கொள்ள வேண்டும். இல்லையெனில் ஒரு வேளை விட்டு அடுத்த வேளை உண்னும் போது அதிமாக வாயுத்தொல்லை ஏற்படும். **மலச்சிக்கல், வயிற்றுப்போக்கு:-** மலச்சிக்கல் மற்றும் வயிற்றுப் போக்கு ஏற்படும் பொது மலமிலக்கிகளான மாத்திரை, மருந்துகள் ஏதும் மருத்துவரின் ஆலோசனையில்லாமல் கொடுக்கக் கூடாது. உடனே மருத்துவரை அணுக வேண்டும்.		

வ.எண்	நேரம்	நோக்கம்	பாடக்குறிப்பு	ஆசிரியரின் செயல்பாடு	பங்கு பெறுபவரின் செயல்பாடு
7.		பெருங்குடல் திறப்பு அறுவை சிகிச்சைக்கு பின் வழக்கமான வாழ்நாள் நடைமுறைக்கு திரும்புதுல்	**வழக்கமான வாழ்நாள் நடைமுறைக்குத் திரும்புதல்** மிகவும் இறுக்கமான உடைகளை குழந்தைகளுக்கு அணிவிக்கக் கூடாது. பெருங்குடல் திறப்பு அறுவை சிகிச்சைக்குப் பின் குழந்தைகள் பள்ளிக்கு செல்ல முடியும். தகுந்த மலம் சேகரிக்கும் பைகளை பொருத்தி குழந்தைகளை பாதுகாப்பாக உணரச்செய்து அனுப்பலாம்.		
8.		மருத்துவமனையில் இருந்து விடுவிக்கப்பட்ட உடன் சரியான கால இடைவெளியில் மருத்துவரை அணுகுதல்	**அறுவை சிகிச்சைக்குப் பின் கவனிக்க வேண்டிய அபாய அறிகுறிகள்:-** ⌖ தொடர்ந்து வாந்தி, குமட்டல் இருத்தல் ⌖ வழக்கத்திற்கு மாறான "துர்நாற்றம்" ஏற்படுதல் ⌖ மலத்துளையின் நிறம் மற்றும் அளவு மாறுபட்டு இருத்தல். துளையானது கருப்பு நிறத்துடன் மற்றும் வெளிர் நிறமாக இருந்தால்		

வ.எண்	நேரம்	நோக்கம்	பாடக்குறிப்பு	ஆசிரியரின் செயல்பாடு	பங்கு பெறுபவரின் செயல்பாடு
			உடனே மருத்துவரை அணுக வேண்டும். ⌖ அதிகமாக இரத்தக்கசிவு ஏற்படுதல் ⌖ துளையை சுற்றியுள்ள பகுதிகளில் அரிப்பு ஏற்பட்டு சிவந்து காணப்படுதல். ⌖ மருத்துவமனையில் இருந்து விடுவிக்ப்பட்ட உடன் 3 வாரங்களுக்கு ஒரு முறை தவறாது மருத்துவமனைக்கு சென்று மருத்துவரை பார்க்க வேண்டும். ⌖ பெருங்குடல் திறப்பு துளையில் ஏதேனும் அபாய அறிகுறிகள் இருந்தால் உடனே மருத்துவமனைக்கு வர வேண்டும்.		

APPENDIX-XI

PHOTOGRAPH

APPENDIX-II

Ref.No.12332/E1/5/2014

Madurai Medical College,
Maduai -20. Dated: 27.01.2015

Institutional Review Board/Independent Ethics Committee
Dean, Madurai Medical College &
Government Rajaji Hospital, Madurai 625 020 . Convenor
Capt.Dr.B.Santhakumar,MD (FM). deanmdu@gmail.com

Sub: Establishment – Madurai Medical College, Madurai-20 –
Ethics Committee Meeting – Meeting Minutes - for December 2014 –
Approved copy – reg.

The Ethics Committee meeting of the Madurai Medical College, Madurai was held on January 05th 2015 at 10.00 Am to 12.00 Noon at Anaesthesia Seminar Hall at Govt. Rajaji Hospital, Madurai . The following members of the Ethics Committee have attended the meeting.

1.Dr.V.Nagarajan,M.D.,D.M(Neuro) Ph: 0452-2629629 Cell No.9843052029 nag9999@gmail.com.	Professor of Neurology (Retired) D.No.72, Vakkil New Street, Simmakkal, Madurai -1	Chairman
2.Dr.Mohan Prasad, MS.M.Ch. Cell.No.9843050822 (Oncology) drbkcmp@gmail.com	Professor & H.O.D of Surgical Oncology (Retired) D.No.32, West Avani Moola Street, Madurai.-1	Member Secretary
3. Dr.L.Santhanalakshmi, MD (Physiology) Cell No.9842593412 dr.l.santhanalakshmi@gmail.com.	Vice Principal, Prof. & H.O.D. Institute of Physiology Madurai Medical College	Member
4.Dr.K.Parameswari, MD(Pharmacology) Cell No.9994026056 drparameswari@yahoo.com.	Director of Pharmacology Madurai Medical College.	Member
5.Dr.S.Vadivel Murugan, MD., (Gen.Medicine) Cell No.9566543048 svadivelmurugan_2007@rediffmail.com.	Professor & H.O.D of Medicine Madurai Medical College	Member
6.Dr.A.Sankaramahalingam, MS., (Gen. Surgery) Cell.No.9443367312 chandrahospitalmdu@gmail.com	Professor & H.O.D. Surgery Madurai Medical College.	Member
7.Mrs.Mercy Immaculate Rubalatha, M.A., Med., Cell.No.9367792650 lathadevadoss86@gmail.com	50/5, Corporation Officer's Quarters, Gandhi Museum Road, Thamukam, Madurai-20.	Member
8.Thiru.Pala.Ramasamy, B.A.,B.L., Cell.No.9842165127 palaramasamy2011@gmail.com	Advocate, D.No.72,Palam Station Road, Sellur, Madurai-20.	Member
9.Thiru.P.K.M.Chelliah, B.A., Cell No.9894349599 pkmandco@gmail.com	Businessman, 21 Jawahar Street, Gandhi Nagar, Madurai-20.	Member

The following Project was approved by the Ethical Committee

Name of P.G.	Course	Name of the Project	Remarks
Mrs.Dhanalakshmi Chinnathambi Dhanapriya31297@gmail. com.	M.Sc (Nursing) 1st year Child Health Nursing , Madurai Medical College, Madurai.	"A study to evaluate the effectiveness of instructional package on knowledge regarding colostomy care among care givers in pediatric post operative ward at Institute of Child Health and Research Centre, GRH, Maudrai.	Approved

Please note that the investigator should adhere the following: She/He should get a detailed informed consent from the patients/participants and maintain it Confidentially.

1. She/He should carry out the work without detrimental to regular activities as well as without extra expenditure to the institution or to Government.
2. She/He should inform the institution Ethical Committee, in case of any change of study procedure, site and investigation or guide.
3. She/He should not deviate the area of the work for which applied for Ethical clearance. She/He should inform the IEC immediately, in case of any adverse events or Serious adverse reactions.
4. She/He should abide to the rules and regulations of the institution.
5. She/He should complete the work within the specific period and if any Extension of time is required He/She should apply for permission again and do the work.
6. She/He should submit the summary of the work to the Ethical Committee on Completion of the work.
7. She/He should not claim any funds from the institution while doing the work or on completion.
8. She/He should understand that the members of IEC have the right to monitor the work with prior intimation.

Member Secretary
Ethical Committee

Chairman
Ethical Committee

27-1-15

DEAN/Convenor
Madurai Medical College &
Govt. Rajaji Hospital, Madurai.

27.6
27/1/15

To
The above Applicant
-thro. Head of the Department concerned

APPENDIX-III

CONTENT VALIDITY CERTIFICATE

This is to certify that the tool

SECTION A- Demographic Data

SECTION B- Instructional package and Flash cards.

Prepared for data collection by Mrs.Dhanalakshmi Chinnathambi., II year M.Sc (N) student, College of Nursing, Madurai Medical College, Madurai, who has undertaken the study field on thesis entitled **"A Study to evaluate the effectiveness of instructional package on knowledge regarding colostomy care among care givers in pediatric post operative ward at institute of child health and research centre, GRH, Madurai"** has been validated by me.

28/1/15

SIGNATURE OF THE EXPERT

NAME:

DESIGNATION: Dr. N. KARUPPASAMY, M.S.,D.L.O.,M.Ch. Asst. Prof. of Paediatric Surgery

ADDRESS: Govt. Rajaji Hospital, Madurai-20. Reg. No: 46434

DATE:

CONTENT VALIDITY CERTIFICATE

This is to certify that the tool

SECTION A- Demographic Data

SECTION B- Instructional package and Flash cards.

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R. Jothilakshmi

SIGNATURE OF THE EXPERT

NAME: R. JOTHILAKSHMI

DESIGNATION: Reader/Associate professor

ADDRESS: Sacred Heart nursing college madurai -20

R. JOTHI LAKSHMI, M.Sc.,(N)Ph.D
Asso ·:e Professor
Sacred Heart Nursing College
MADURAI - 20

DATE: 11/8/15

CONTENT VALIDITY CERTIFICATE

This is to certify that the tool

SECTION A- Demographic Data

SECTION B- Instructional package and Flash cards.

Prepared for data collection by Mrs.Dhanalakshmi Chinnathambi., II year M.Sc (N) student, College of Nursing, Madurai Medical College, Madurai, who has undertaken the study field on thesis entitled **"A Study to evaluate the effectiveness of instructional package on knowledge regarding colostomy care among care givers in pediatric post operative ward at institute of child health and research centre, GRH, Madurai"** has been validated by me.

M. Vani

SIGNATURE OF THE EXPERT

NAME: M. VANI CHITRA DEVI - M.Sc(N)

DESIGNATION: VICE PRINCIPAL

ADDRESS: KARPAGAVINAYAGA COLLEGE OF NURSING
J.J. NAGAR, SIVAPURAM, PUDUKKOTTAI

DATE: 6.6.15

CONTENT VALIDITY CERTIFICATE

This is to certify that the tool

SECTION A- Demographic Data

SECTION B- Instructional package and Flash cards.

Prepared for data collection by Mrs.Dhanalakshmi Chinnathambi., II year M.Sc (N) student, College of Nursing, Madurai Medical College, Madurai, who has undertaken the study field on thesis entitled **"A Study to evaluate the effectiveness of instructional package on knowledge regarding colostomy care among care givers in pediatric post operative ward at institute of child health and research centre, GRH, Madurai"** has been validated by me.

SIGNATURE OF THE EXPERT

NAME: Dr.A.HELEN M PERDITA

DESIGNATION: PRINCIPAL MADURAI APOLLO COLLEGE OF NURSING

ADDRESS: ELIYARPATHI VILLAGE MADURAI SOUTH TALUK, MADURAI-22.

DATE:

CONTENT VALIDITY CERTIFICATE

This is to certify that the tool

SECTION A- Demographic Data

SECTION B- Instructional package and Flash cards.

Prepared for data collection by Mrs.Dhanalakshmi Chinnathambi., II year M.Sc (N) student, College of Nursing, Madurai Medical College, Madurai, who has undertaken the study field on thesis entitled **"A Study to evaluate the effectiveness of instructional package on knowledge regarding colostomy care among care givers in pediatric post operative ward at institute of child health and research centre, GRH, Madurai"** has been validated by me.

SIGNATURE OF THE EXPERT

NAME:

DESIGNATION:

ADDRESS:

DIRECTOR
INSTITUTE OF CHILD HEALTH &
RESEARCH CENTRE
GOVT. RAJAJI HOSPITAL
MADURAI 625020

DATE:

APPENDIX-IV

ஒப்புதல் அறிக்கை

பெயர்

தேதி:

எனக்கு இந்த ஆய்வைப்பற்றிய முழு விவரம் விளக்கமாக எடுத்துரைக்கப்பட்டது. இந்த ஆய்வில் பங்கு பெறுவதில் உள்ள நன்மைகள் மற்றும் தீமைகள் பற்றி நான் புரிந்து கொண்டேன். நான் இந்த ஆய்வில் தானாகவே முன்வந்து எனபங்கு பெற சமமதிக்கிறேன். மேலும் இந்த ஆய்வில் இருந்து எந்த நேரமும் விலகிக் கொள்ள முழு அனுமதி வழங்கப்பட்டுள்ளது. என் **குழந்தையின்** சிகிச்சை ஆவணங்களைப் பார்வையிட்டு அதில் உள்ள விவரங்களை ஆய்வில் பயன்படுத்திக் கொள்ள அனுமதி அளிக்கின்றேன். என்னுடைய பெயர் மற்றும் அடையாளங்கள் ரகசியமாக வைத்துக் கொள்ளப்படும் என்றும் எனக்கு உறுதியளிக்கப்பட்டுள்ளது.

கையொப்பம்

APPENDIX-V

SECTION - A

SOCIO DEMOGRAPHIC VARIABLE

1. Age in years of care giver
   a. 20 – 25 ☐
   b. 26 – 30 ☐
   c. 31 – 335 ☐
   d. 35 above ☐

2. Educational status
   a. Primary education ☐
   b. Secondary education ☐
   c. Degree ☐

3. Occupation ☐
   a. Home maker ☐
   b. Private job ☐
   c. Government job

4. Type of the family ☐
   a. Nuclear family ☐
   b. Joint family ☐
   c. Extended family

5.Income

a. Below Rs 2000/- ☐
b. 5001-10,000/- ☐
c. 10,0001-20,000/- ☐
d. Rs.20,000 above ☐

6. Type of marriage

a. Consanguinity ☐
b. Non Consanguinity ☐

7. Living Place

a. Urban ☐
b. Rural ☐
c. Out of the city ☐

SECTION - B

KNOWLEDGE QUESTIONNAIRES

1. What is the meaning of colostomy?
    a. Is a surgical procedure where by opening is made in the abdominal wall through which the colon passes and a bag is fitted to collect stool ☐
    b. Resection of intestine ☐
    c. Anestomosis of intestine ☐

2. What are all the causes to do colostomy?
    a. Birth defects anorectic anomaly ☐
    b. Abdominal pain ☐
    c. Indigestion ☐

3. What is the indication for colostomy?
    a. To eliminate the stool ☐
    b. To anestomosis intestine ☐
    c. To removal of appendix ☐

4. What is the meaning of ‘stoma’?
    a. There is a surgical opening of the intestine and to eliminate the fecal matter ☐
    b. It is worm in the colon ☐
    c. It is leaking in the intestine ☐

5. What is the normal appearance of “stoma”?

a. Stoma look pink, red, warm and moist secretes mucus ☐

b. Black in colour ☐

c. Yellowish colour ☐

6. After surgery when the ‘stoma’ will come to normal stage?

a. After 10days ☐

b. Within a week ☐

c. 6 - 8 weeks ☐

7. How we should clean the stoma

a. clean the wound by applying medicine from inner to out ☐

b. By using water ☐

c. Dry with cotton ☐

8. What is the meaning of colostomy pouches?

a. Pouches are made from odor- resistant material and vary in cost ☐

b. It is a bag made up of in the cotton. ☐

c. It is a bag filled with medicines. ☐

9. What are all the precautions to be followed when applying pouches?

a. Wash hands thoroughly by soap and water. ☐

b. Observe the length of the stoma. ☐

c. Observe the colon of the child is having cough. ☐

10. What are all the different types of pouches?

a. One piece or two piece pouches. ☐
b. Three piece pouches ☐
c. four piece pouches ☐

11. When we will change the pouches?

a. Whenever necessary ☐
b. There may be less bowel activity at certain times in the day. ☐
c. After taking food. ☐

12. What kind of food to be avoided after colostomy procedure?

a. Egg, milk, cabbage. ☐
b. Leafy vegetables ☐
c. Pulses. ☐

13. What kind of food item to be given below one year of colostomy child?

a. Exclusive breast feeding up to 9 month. ☐
b. Supplementary feeding. ☐
c. Non vegetarian foods. ☐

14. What is the reason to be avoided certain kinds of foods after colostomy surgery?

a. Can produce odour ☐
b. Indigestion of food ☐
c. Increase appetite ☐

15. Which type of garments to be worn after the colostomy procedure?

a. Cotton made loose garments. ☐

b. Nylon dresses. ☐

c. Any tight clothes. ☐

16. After surgery shall we send the child to school?

a. Allowed ☐

b. Not allowed ☐

c. Some times ☐

17. How will you send the child to school after colostomy?

a. Advice to wear suitable pouches and feel comfortable. ☐

b. Not send the child to school ☐

c. None of the above. ☐

18. What kind of diet to be given after colostomy?

a. Clear water less fibre contains food. ☐

b. Dhall and pulses. ☐

c. Leafy vegetables. ☐

19. What are all the warning signs should be observed on stoma?

a. Excessive bleeding from the stoma opening. ☐

b. Color of the stool, pain on the stomach. ☐

c. All the above. ☐

20. When did the child come back to follow up care?

a. 10 days after ☐

b. 3or 4 weeks after. ☐

c. Within a week. ☐

APPENDIX-VI

SECTION - A

தன்னிலை விபரக் குறிப்பு

1. தாயின் வயது
   - அ. 20 – 25 ☐
   - ஆ. 26 – 30 ☐
   - இ. 31 – 335 ☐
   - ஈ. 35 வயதிற்குமேல் ☐

2. கல்வி தகுதி
   - அ. ஆரம்பகல்வி ☐
   - ஆ. நடுநிலைக் கல்வி ☐
   - இ. பட்டப்படிப்பு ☐

3. தொழில்
   - அ. வீட்டிலிருப்பவர் ☐
   - ஆ. தனியார் நிறுவனம் ☐
   - இ. அரசு வேலை ☐

4. குடும்ப அமைப்பு
   - அ. தனிக்குடும்பம் ☐
   - ஆ.கூட்டுக் குடும்பம் ☐
   - இ. சேர்ந்து வாழும் குடும்பம் ☐

5. வருமானம்
   - அ. 5000 - 10000 ☐
   - ஆ. 10001 – 20,000 ☐
   - இ. 20,000க்கும் மேல் ☐

6. திருமண நிலை

அ. உறவுமுறை திருமணம் ☐

ஆ. உறவுமுறை இல்லா திருமணம் ☐

7. வாழும் இடம்

அ. நகர்புறம் ☐

ஆ. கிராமம் ☐

SECTION - B

அறிவுத் திறன் கேள்வி

1. பெருங்குடல் திறப்பு என்றால் என்ன?
   1. அறுவை சிகிச்சை மூலம் பெருங்குடல் முனையை வயிற்றின் மேல் பரப்பிற்கு கொண்டுவருதாகும்.
   2. குடல் பகுதியை இணைப்பதாகும்
   3. குடல் பகுதியை நீக்குவதாகும்

2. பெருங்குடல் திறப்பு செய்வதற்கான காரணம் என்ன?
   a. குடலில் அடைப்பு ஏற்படும்போது
   b. பிறவியிலேயே ஆசனவாய் இல்லாதபோது
   c. வயிற்றில் செரிமாணம் குறையும்போது

3. பெருங்குடல் திறப்ப செய்வதற்கான நோக்கம் என்ன?
   1. அறுவை சிகிச்சை செய்து "துளைமூலம்" மலம் வெளியேற்றுதலாம்
   2. குடலில் உள்ள நோயை குணப்படுத்துவதற்கு
   3. குடல் அசைவினை சரிசெய்வதற்கு

4. பெருங்குடல் திறப்பு "துளை" என்றால் என்ன?
   1. துளை என்பது மலம் வெளியேறும் வழியாகும்
   2. அறுவை சிகிச்சை காயம்
   3. குடல்வால் பகுதியாகும்.

5. அறுவை சிகிச்சைக்குப்பின் பெருங்குடல் திறப்பு "துளை" எப்போது சுருங்கும்.
   1. 10 நாட்களில்
   2. 6 முதல் 8 வாரத்தில்
   3. ஒரு வாரத்தில்

6. பெருங்குடல் திறப்பு துளையை எவ்வாறு சுத்தம் செய்யவேண்டும்.
   a. மருந்தின் மூலம்
   b. தோலில் மருந்தினை தடவ வேண்டும்.
   c. மருந்தின் மூலம் மையப்பகுதியிலிருந்து வெளிப்புறமாக சுத்தம்செய்ய வேண்டும்.

7. பெருங்குடல் திறப்பு “பைகள்” என்றால் என்ன?
    1. துளையின் மேல் மலம் சேகரிக்க பொருத்தும் பைகள்
    2. துளையை பாதுகாப்பதற்கு
    3. கிருமி தொற்று ஏற்படாமல் பாதுகாப்பதற்கு

8. பெருங்குடல் திறப்பு பைகளை எவ்வாறு உபயோகப்படுத்த வேண்டும்?
    1. துளையின் அறவிற்கு பொருத்துமாறு தேர்வு செய்து ஒட்ட வேண்டும்
    2. தோலில் ஒட்ட வேண்டும்
    3. துளையை மூடியிருக்க வேண்டும்

9. பெருங்குடல் திறப்பு பைகள் பொருத்தும் முன் என்ன முறைகளை கையாள வேண்டும்.
    1. துளையின் அளவினை கவனிக்க வேண்டும்
    2. சோப்பின் மூலம் கைகளை நன்றாக கழுவவேண்டும்.
    3. துளையினை சுற்றி சுத்தம் செய்ய வேண்டும்.

10. பெருங்குடல் திறப்பு அறுவை சிகிச்சைக்குப்பின் என்ன உணவு வகைகள் கொடுக்க வேண்டும்.
    1. போதுமான அளவு தண்ணீர், மற்றும் பச்சை காய்கறிகள்
    2. அசைவ உணவுகள்
    3. நார்சத்து பழங்கள், காய்கறிகள்

11. பெருங்குடல் திறப்பு அறுவை சிகிச்சைக்குப்பின் எந்த உணவு வகைகளை தவிர்க்க வேண்டும்.
    1. நார்ச்சத்து உணவுகள் மற்றும், முட்டை, பால்
    2. காய்கறிகள்
    3. பழங்கள்

12. பெருங்குடல் திறப்பு அறுவை சிகிச்சைக்குப்பின் ஏன் சில உணவுகளை தவிர்க்க வேண்டும்.
    1. துர்நாற்றமுள்ள வாயுவினை உண்டாக்கும்
    2. செரிமானம் ஆகாது
    3. அதிகமாக பசியினை உண்டாக்கும்
    4. குடலில் அடைப்பினை உண்டாக்கும்

13. அறுவை சிகிச்சைக்குப்பின் அணியும் ஆடை வகைகளை எப்படி இருக்க வேண்டும்.
    a. தளர்வாக, பருத்தியினால் ஆன ஆடைகள்
    b. இறுக்கமான ஆடைகள்
    c. நைலான் ஆடைகள்

14. பெருங்குடல் திறப்பு துளையில் ஏற்படும் அபாய அறிகுறிகள் யாவை?
    a. துளையின் நிறம் கறுத்து, வெளிர் நிறத்துடன், நிறைய இரத்தம் கசிதல்
    b. அதிக மலம் வெறியேறுதல்
    c. பைகள் சரியாக பொருத்தாதிருத்தல்

15. அறுவை சிகிச்சைக்குப்பின் மறுவருகைக்கு குழந்தை எப்போது வரவேண்டும்.
    a. 10-நாட்களில்
    b. மூன்று அல்லது நான்கு வாரம் கழித்து
    c. ஒருவாரத்தில்

16. அறுவை சிகிச்சைக்குப்பின் குழந்தையை பள்ளிக்கு எவ்வாறு அனுப்ப வேண்டும்.
    1. சரியான "பைகளை" பொருத்தி பாதுகாப்பாக உணரச்செய்து பள்ளிக்கு அனுப்பலாம்
    2. பள்ளிக்கு அனுப்ப முடியாது
    3. பாதுகாப்பாக உணர முடியாது.

17. பெருங்குடலில் திறப்பு பைகளின் வகைகள் யாவை?
    1. தோலில் ஒட்டக்கூடிய, தண்ணீர் ஊடுறுவாத பைகள்
    2. அளலில் பெரிய பைகள்
    3. இரண்டு அறைகளாக உள்ள பைகள்

18. மலச்சிக்கல் வராமல் இருக்க என்ன செய்ய வேண்டும்.
    a. போதுமான அளவு தண்ணீர் பருக வேண்டும்
    b. மலமிலக்கி மாத்திரைகளை உபயோகிக்க வேண்டும்
    c. மிதமான சுடுநீரில் குளிக்க வைக்க வேண்டும்.

19. ஒரு வயதிற்குட்பட்ட குழந்தைக்கு அறுவை சிகிச்சைக்குப்பின் என்னஉணவு கொடுக்கவேண்டும்?

    a. 9 மாதங்கள் வரை தாய்ப்பால் மட்டுமே கொடுக்கவேண்டும்

    b. இணை உணவு கொடுக்கலாம்

    c. அசைவ உணவு கொடுக்கலாம்

20. துளையை சுற்றியுள்ள தோலில் என்ன கவனிக்க வேண்டும்?

    a. தோலில் மலம் கசிந்து தோல் சிவந்து, அரிப்பு, ஏற்படுதல்

    b. தோல் சுருக்கம்

    c. தோல் வறட்சி

APPENDIX-VII

CERTIFICATE OF ENGLISH EDITING

TO WHOMSOEVER IT MAY CONCERN

This to certify that the dissertation by Dhanalakshmi Chinnathambi II year M.Sc.,(N) student, College of Nursing, Madurai Medical College, Madurai, who has undertaken by study field on Dissertation entitled "A study to evaluate the effectiveness of instructional package on knowledge regarding colostomy care among care givers in pediatric post operative ward at institute of Child Health and Research Centre, Madurai" .has been edited for English language appropriateness.

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APPENDIX-VIII

CERTIFICATE OF TAMIL EDITING

TO WHOMSOEVER IT MAY CONCERN

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